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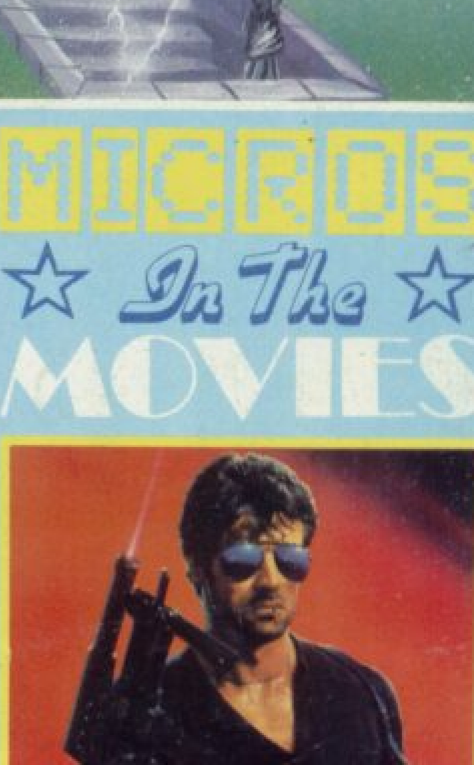
NOVEMBER 1986 No. 56 £1

MORE SOFTWARE REVIEWS

DRUID 'N' DANDY THROW DOWN THE GAUNTLET



MICROS *In The* MOVIES

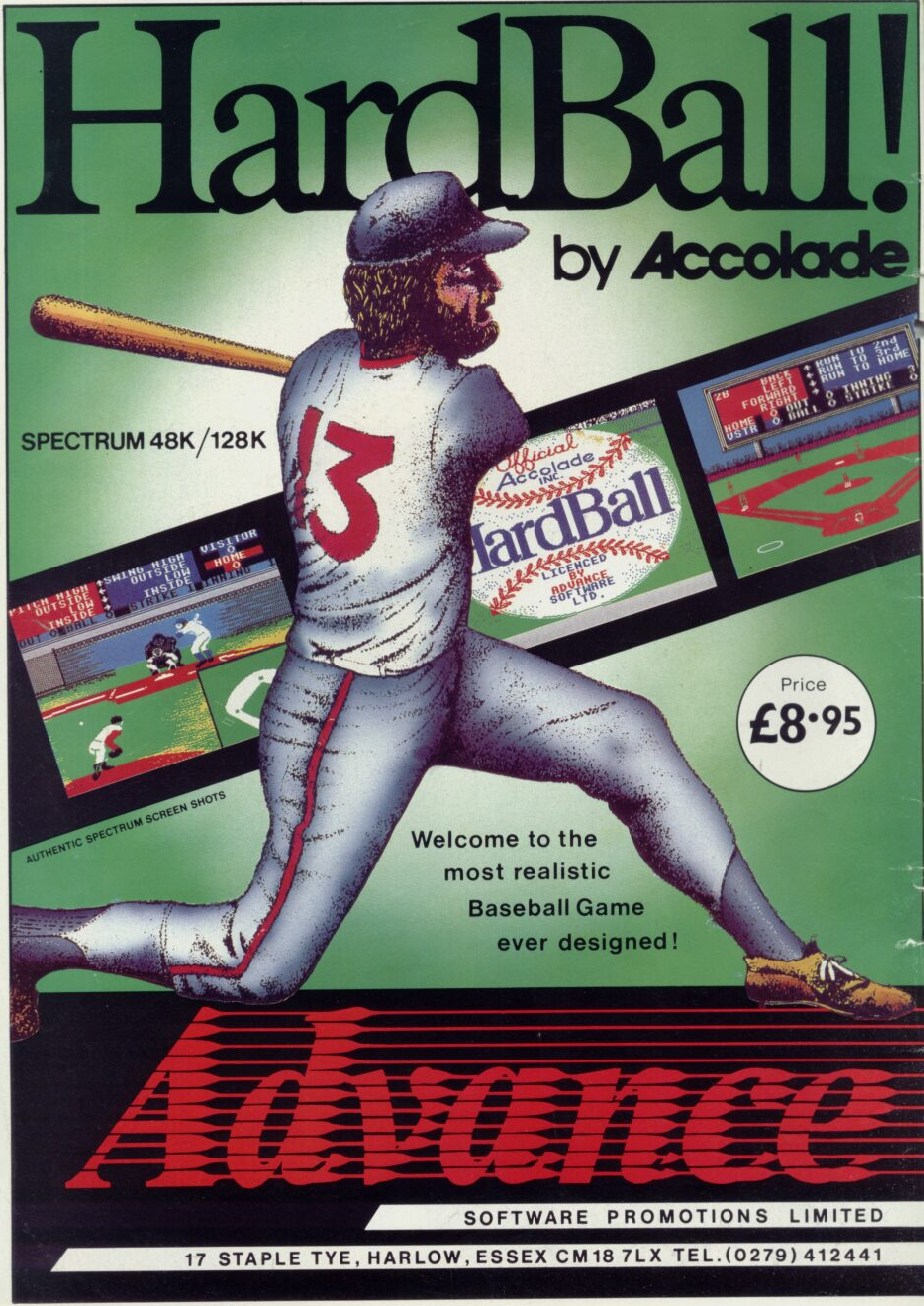


128K+2 CODING ★ JOYSTICK ZAP TEST

MOUSE WORK ★ CHEETAH SAMPLER ★ DAN DARE DUO

DUCK MOVIE COMPO! ★ HIGHSOFT COMPILER

URIDIUM ★ PRODIGY ★ GALVAN


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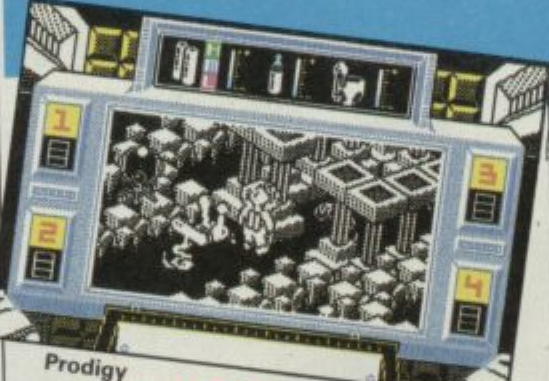
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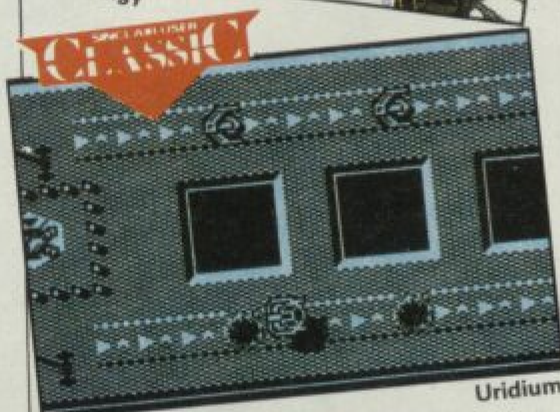
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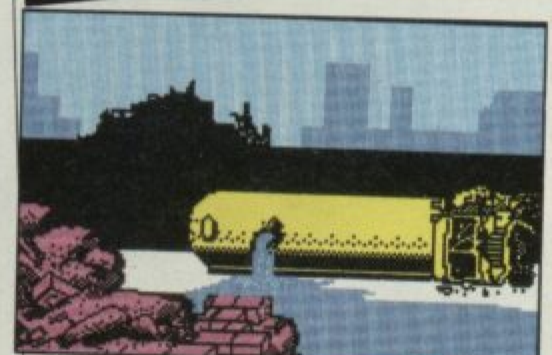
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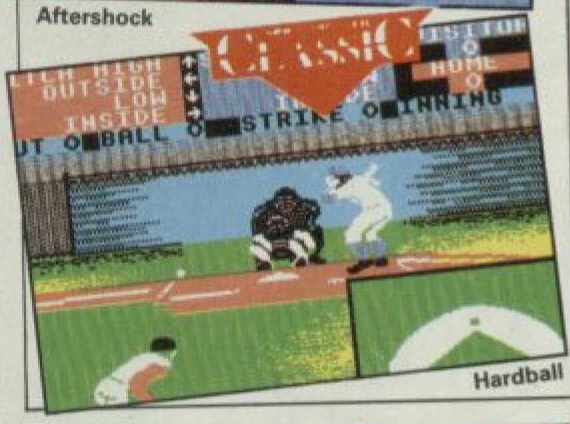
Prodigy



Uridium



Aftershock



Hardball

SOFTWARE

HARDWARE

Take a look at Cheetah's latest music aadd-add-o-o-on-n-n-n-n

DIY PROJECT

All you need to know to build your own interface to connect a 'normal' non-Amstradified joystick to the new 128K+2

SURVEY

Try the waggle test! We did. The cheapest. The strongest. The coolest. The fastest

MICROS IN

Aliens the movie will soon be Aliens the game from Electric Dreams. Designer Mark Eyles gives away a few secrets



E · N · T · S

THE MOVIES



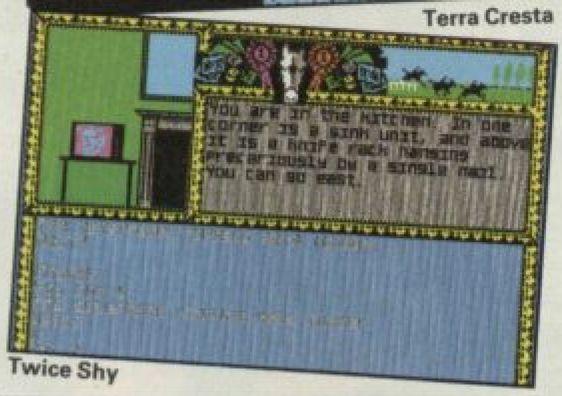
If you're a software house and you haven't licenced a blockbuster movie for this Xmas then you're going nowhere. We've been grovelling around on the cutting room floor — and just look what we found!

PREVIEWS

Including Terra Cresta, Twice Shy, Cobra, Dante's Inferno, Tempest, Fairlight II, Academy, Tarzan, Terminus, Explorer...



Terra Cresta



Twice Shy

COVER SMASH



COMPETITIONS

Now I know ducks tend to be dependable and doudy not dynamic and dangerous — but Howard's different. He's from another planet.

He's also in a big bucks movie — and we've got cinema tickets to win!

He's an Activison game — and we've got tapes to win!!

And he's a poster — and we've got them too!!!

SPECIAL OFFER

We smash 25 per cent off the cost of joysticks — YOU could have a Gunshot 1 at the end of YOUR arm

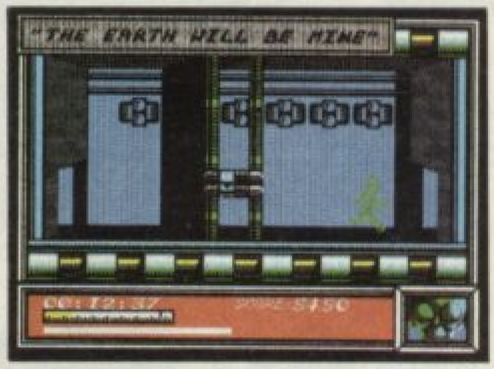
FEATURES

We take the meeces to pieces — both for the Spectrum and the QL — and trap the best ones

What's so good about the 128K+2's sound and Basic? All your important questions about the new machine answered

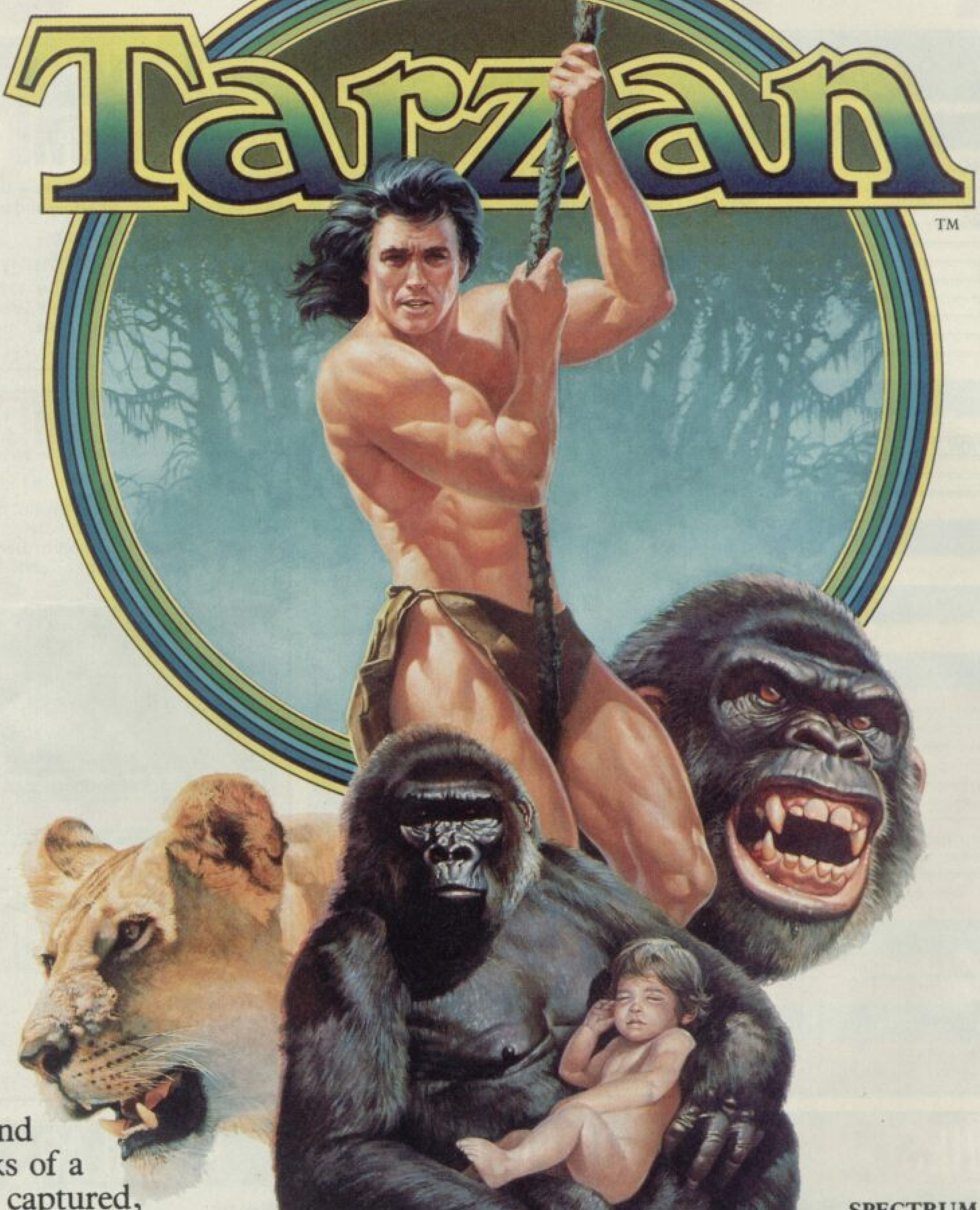
NEW FEATURE

Smart chaps from the world of hex addresses talk candidly about something else. This month: Dan Dare authors Dave Chapman and Martin Wheeler



PRINTOUT

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NEWS

UNDER RAPS!

● Doctor What (Who?) is being put together for CRL by The Software Foundation, a new programming team which has yet to find its feet. The game involves a chase through time in a customised Tardis where the Doctor has to find his friends Where and When. (Well...?)

● John Williams, a newcomer to the Spectrum, is writing Oink!, a pig infested adventure game, for CRL.

The game is culled from that curious comic where bacon is a dirty word and which features piggy versions of Stars such as Samantha Fox.



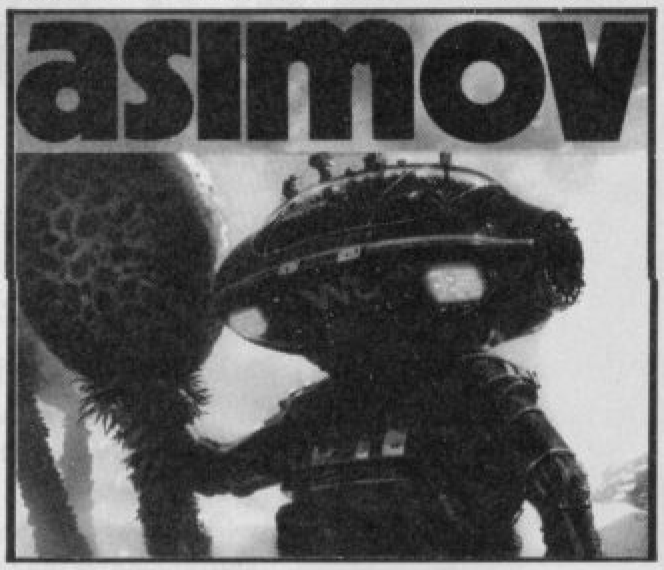
● ***John Campbell is producing an up-graded version of his classic*** *Masterfile* ***database program. It will be marketed by Saga Systems***

● ***Level 9 is enhancing its*** *Silicon Dreams* ***trilogy to include graphics and an advanced text parser. The games will be put out as one package by Rainbird at the end of this year***

● ***John Pragnall, who began by writing war games for CCS, is writing*** *Live and Let Die* ***for Domark. His next product is likely to be the computer game of the new James Bond movie,*** *The Living Daylights. Live and Let Die* ***is due out before the end of the year while*** *Living Daylights* ***will see the light of day in July 1987***

● ***Oxford Digital Enterprises is programming the Junior edition of*** *Trivial Pursuit* ***for Domark. Next year ODE will start the*** *Baby Boomer* ***version of the game***

ISAAC ASIMOV GETS COMPUTERISED



Isaac Asimov, probably the most successful science fiction writer and author of the *Foundation* novels, is to be computerised!

US Gold is bringing out an adventure based on one of his short stories — **Kayleth** — in which players must save the inhabitants of a planet which has been enslaved.

It will be released before Christmas. No price has been fixed yet though.

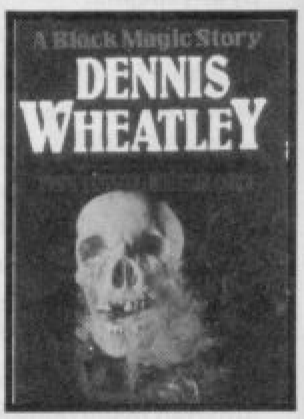


▲ **Isaac seeks inspiration for his next country and western tune to be recorded for US Gold**

WHEATLEY MYSTERY FROM CRL

Two who-dunnits by top-selling black magic writer Dennis Wheatley — author of *The Devil Rides Out* — are being converted to your micro by CRL.

Delta 4 — with Fergus McNeil — is programming **The Malinsay Massacre** and **Murder off Miami**, two very unusual books. When originally published each book contained a series of mock-up official police documents, photos of the scene of the crime and samples of 'blood', 'hair', matchboxes and anything else to help the reader solve the crime. The solution was sealed in an envelope at the back of the book.



The adventure games will keep a similar emphasis on clues but, according to Fergus, players will have to find them in the games themselves before they can discover their meanings and importance in the plot — rather like the recent Infogrammes release, **Vera Cruz.**

Fergus won't be doing all the programming himself. For the two titles he's teamed up with his mate Jason Sommerville, who'll be doing much of the actual coding.

The Malinsay Massacre will be the first release, on the streets early in the new year.

Sounds a heap of fun.



BOOTS DROPS 128K+2 PACKAGE

Amstrad's new Spectrum 128K+2 has got off to a bit of a slow start.

Demand is high but by the beginning of October some stores hadn't even received demo machines. Bulk deliveries aren't now expected until late-October, a delay of several weeks.

As well as demand already outstripping supply some retailers are far from happy about the package of bundled software Amstrad is suggesting should be sold with the machine.

Titles included are **Crazy Golf, Punchy, Disco Dan, Alien, Destroyer, Treasure Island** and **Oh Mummy** — none of which have been chart hits.

Boots has already opted to put together its own package deal — including **Legend of the Amazon Women, Fighting Warrior** and **Way of the Tiger** — and will be selling the machine from October 31.

The pack also includes the Cheetah joystick, a move which, in itself, is certain to infuriate Amstrad. Amstrad's unusual joystick interface design was intended to impose the Amstrad 'stick' as a standard, but Cheetah has been very quick off the mark with its own compatible model.

COMPLETE COMPLIMENT SPECIFICATIONS

The final spec of The Compliment — Saga Systems' ultimate add-on for the Spectrum — has now been decided.

The Compliment kit comprises the Saga 2+ professional quality keyboard, Opus 3.5 inch disc drive, Compliment letter-quality printer and a range of utility software.

The printer is a new 136-column near letter quality dot-matrix unit with a print speed of 150 cps.

The Compliment package also includes a substantial collection of bundled software including Saga's own **Last Word** word processor.

Also included is a key-define and mouse compatible graphics program.

Myrmidon Software has created an operating environment for Compliment.



And the final piece of bundled software with the pack is the **Masterfile** database title from Campbell.

Compliment will be available in the high street soon, price £344.94.

● ***Watch out for a full review of the system in next month's Sinclair User.***

NEWS

EEK! — KONAMI COIN-OPS BREAK

Konami, the Japanese arcade game manufacturer recently involved with Imagine Software, has announced new programs — this time to be put out on its own new label.

Arcade translations include **Jail Break, Nemesis, Super Basketball** and **Iron Horse** all out before Christmas.

The company is also converting its hot coin-op title **Salamander** for release in early 1987



Jail Break ▶

ALL IN ONE JOYSTICK/DISC INTERFACE

The Disciple, from Rockfort Products, is a combined disc, joystick and network interface for the Spectrum.

The disc interface gives you up to 1.5M of storage on two drives. It can save and load 48K of code in approximately 3.5 seconds. A snapshot button on the casing enables you to zap a program from memory to disc when it is running.

A Centronics printer interface accepts the Basic command words *LList* and *LPrint* enabling you to specify printer set-up and line length. Full high-resolution screens can also be dumped to the printer.

The two joystick ports are Kempston compatible for single port operation. If you're using both ports for a two player game the Sinclair/Amstrad standard comes into action.

An Interface One-compatible network has also been included in the package. The disc system software supports the network's file server and shared resource facility.

Disciple can be obtained from Rockfort Products, 81 Church Road, London NW4 4DP. It costs £84.75



AMSTRAD IN A SPIN OVER SATELITES

Amstrad Electronics is poised to launch into the satellite TV business.

The company has linked up with the high powered consortium interested in setting up a British satellite TV network in the 1990's including Virgin, Anglia Television, Granada television, and Pearson, publisher of the *Financial Times*.

Alan Sugar has already announced his stake in the satellite industry. Amstrad intends to produce a £99 satellite dish by the time the British station hits the air

MICRODRIVE CARTRIDGES AVAILABLE IN BULK

Although Ablex and Sinclair Research seem to have resolved their differences over the short term sales of blank microdrive cartridges bulk buying remains a problem.

A little-known answer is the ICL Supplyline which can handle bulk orders. The microdrives are used in ICL's One Per Desk QL-based micro/telephone gizmo.

Package deals such as the ones below are available from ICL Supplyline, Cavendish Road, Stevenage, Herts (Tel (0438) 313727

Pack Type	1-5	6-10	11+
4 microdrive cartridges in wallet	£7.63	£7.25	£6.87
20 cartridges in desktop box	£39.10	£37.15	£35.19
100 cartridges in cardboard pack	£178.50	£169.58	£160.65

TWTMTW
THAT WAS THE MONTH THAT WAS

The few weeks immediately after the PCW Show are always a bit quiet. And this year things seem even more so because the show last month was so good!

All the hardware and software firms struggle, work all the hours there and generally give themselves nervous break-downs before the show. It's a scramble to get demo versions of what's going to be on the shelves at Christmas up and running for the dealers and retail buyers to see in the first two trade days of the show.

Then things really tone down as they begin to realise what they've committed themselves to!

The sport between now and Christmas is seeing who'll make it and who won't.

Will Beyond get Star Trek **out in time? What is US Gold going to do with its armful of coin-op licences — hardly a demo screen has yet been seen! And where is** Exploding Fist II, **Melbourne House's long awaited maybe megagame?**

There have been great ructions too with software bosses Geoff Heath and Francis Lee leaving Melbourne House and Beyond. Both departures were somewhat unexpected. Possibly even unexpected by the two individuals concerned. The big guessing game now is: Where will they pop up next? We wait with bated breath.

And Amstrad isn't getting things its own way by any means.

For a start its wonderful 128K+2 may well be available for demonstration in some shops up and down the land, but the one thing it aint is available in quantity. All very unusual for a company which prides itself on sticking to delivery dates.

That's not all. Its attempts to foist its own joystick for the machine on the world (via twiddling with the interface connections) seems well and truly spiked. Some shops have opted for other joysticks with an interface lead. Did Amstrad really think it could carry that one off — it certainly leaves a bad taste in the mouth (and a stupid adaptor lead hanging out of people's machines). In this issue we explain, incidentally how to build your own adaptor.

And Amstrad's generous selection of bundled software for the machine looks like being shunned — quite wisely — by some shops, who have elected to put together their own.

Minor hiccoughs apart though, judging from the number of phone calls we've been getting from people with £149 burning a hole in their pockets — if Amstrad can get its act together — the 128K+2 will be the massive hit it definitely deserves to be ■

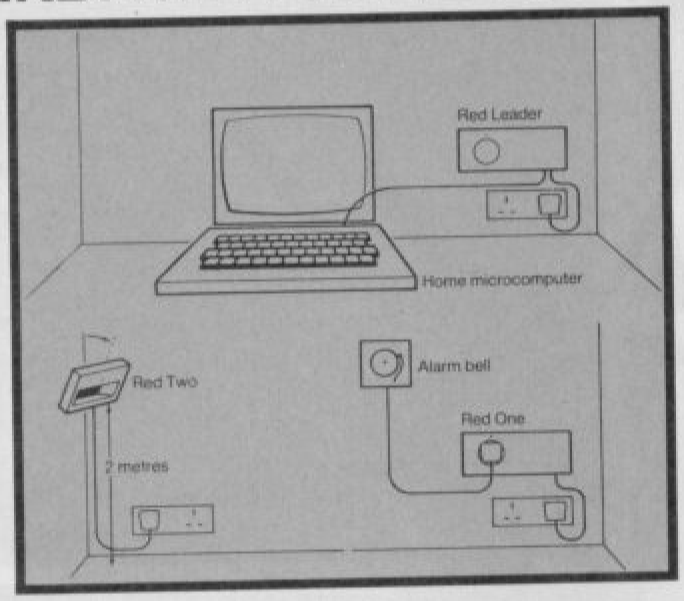
NEWS

CURRY'S TAKE AWAY IN A BOX

You can't keep a good man down. Chris Curry, ex-joint boss of BBC micro firm Acorn and one-time Sinclair Research employee, has popped up again. With something called Red Box.

It's a system for automatically controlling household appliances — heating, lighting and so on — using your Spectrum as the nerve centre. The Red Box unit connects to your micro and sends signals along the mains wiring of a house to control any device plugged into an ordinary 13amp socket.

It can also receive and react to signals from devices such as intruder



alarms, smoke detectors and temperature gauges.

Red Box Starter pack which controls two appliances costs £129 and comprises three units: Red Leader, Red One and Red Two. Red Leader is a microcomputer running its own Basic language and a program which is understood by the Spectrum. It generates the coded data packages transmitted via the mains to Reds One and Two.

Red One is plugged into any 13amp socket and the appliance to be controlled is plugged into the other end. It is effectively an electronically on/off switched socket.

Red Two is a wide-angle infra-red heat sensor which can detect movement at several metres. Further units under development include analogue input and output devices for temperature measurement, a light dimmer control, RS232 units, a 106Db warbling alarm, door and window contact switches and pressure mat for anti-burglar security.

Full story, contact General Information Systems, Croxton Park, Croxton, Cambridgeshire PE19 4SY

QUILL DROPPED BY SWAN

Delta 4, responsible for such classics as The Boggit, Bored of the Rings **— and soon to release** The Colour of Magic **— has dropped the** Quill **as its adventure development system in favour of its new authoring system, called SWAN.**

SWAN, Fergus' System Without A Name, will increase programming flexibility for his authors.

Fergus enthused: 'The system has icons, compressed Art Studio**-type graphics, scrolling text windows, a Level 9-style text parser and a full** *D and D***-type hit point system'.**

Fergus has also taken on a new member of staff, Stephanie Stranger. She'll be working on all new Delta 4 products, bar the Dennis Wheatley titles



Fergus — for it is he

DARLING DUO DEFECT FROM MASTERTRONIC

The author's of Mastertronic's top selling **Last V8** and **Master of Magic** titles — David and Richard Darling — have set up by themselves.

Together with their father Jim, who until the end of last year was boss of AI Products, Mastertronic's leading software originator, they have launched Code Masters — a new budget software label.

The two brothers sold over a million games for Mastertronic and are looking to repeat this success with Code Masters.

Code Masters titles will sell at £1.99 and Jim Darling hopes the label will grab at least 10 per cent of the budget sales by Christmas — by which time Code Masters plan to have released at least 50 games programs



◄ I'm sorry Dad — no matter how macho I look I just can't seem to make this bike move

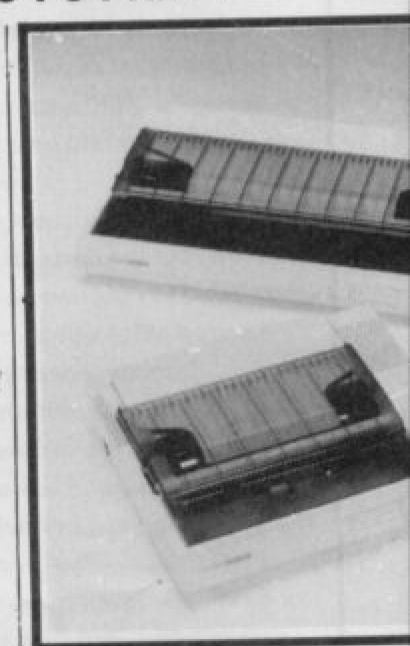
CITIZEN GOES TO PRINT

Citizen Europe has added two up-market dot matrix printers to its range.

The MSP 10E is an 80-column printer while the MSP 15E prints across 136 columns. Apart from that both machines are identical. Draft output is 160 characters per second while near letter-quality speed is 40 characters per second.

Other features include a standard 8K buffer, full bit-image graphics and Epson compatibility.

The MSP 10E costs £349. The MSP 15E is £499



QUARK STRANGENESS CHARM

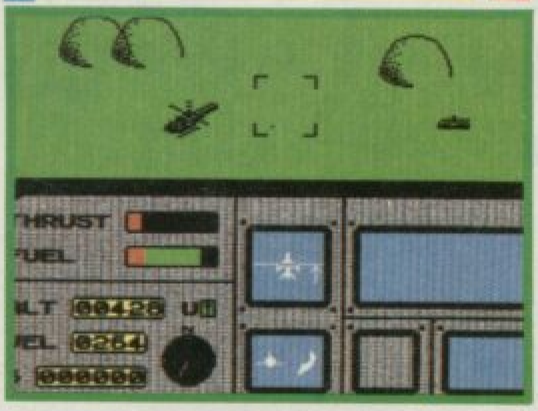
● *A 78-page book, called* Using Computers for Business Success *explains how to analyse business needs before choosing hardware or software. In step-by-step terms it also suggests how companies can be reorganised so that new technology is introduced into a well-functioning business environment and how jobs can be redesigned so that staff make the best possible use of the computer. More information from Russell Cialis, Manchester Business School, Booth Street West, Manchester M15 6PB*

● *Bernard Babani, the technical publishing house, has released its 1987 catalogue. It can be obtained free if you send your address to Bernard Babani Publishing, The Grampians, Shepherds Bush Road, London W6*

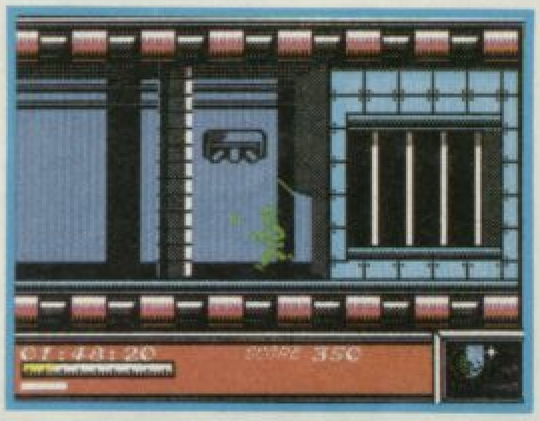
● *Introductory postal computer courses, covering a wide range of subjects for children and adults, have been launched by Microwise UK. Subjects available include introductory and advanced programming, assembly language, graphics and applications. Each course includes software and texts. A full back-up service is also provided for assessment of coursework and for answers to any related questions. More information from Microwise UK, Freepost 468, Colchester, CO3 4BR*

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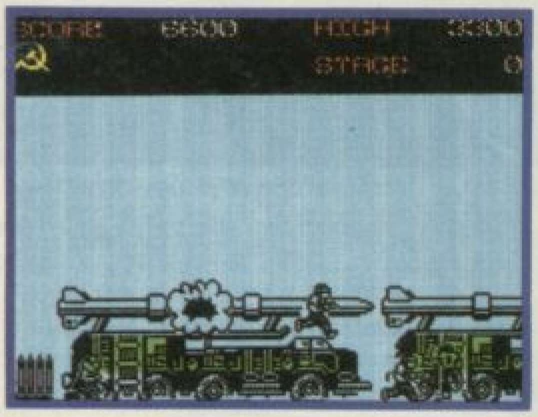
T★O★P T★W



▲ In the top slot: ACE



▲ Tip for the top: Dan Dare

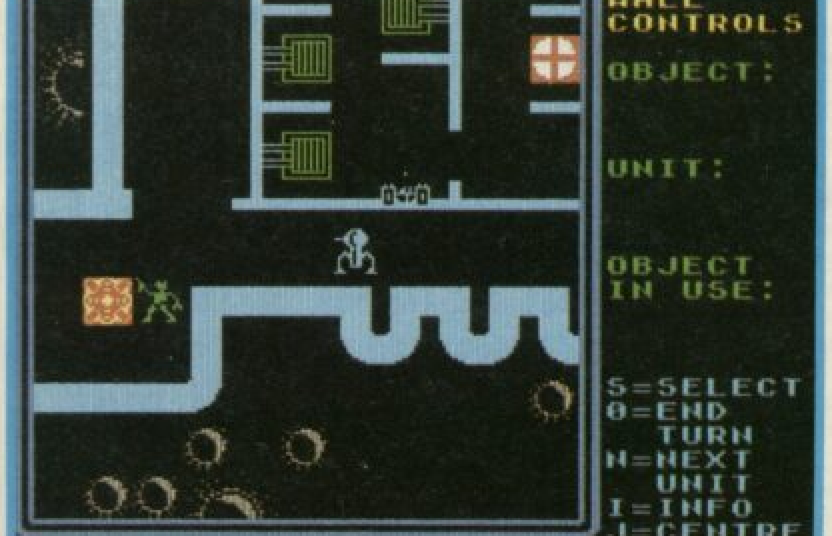


▲ Longest on the chart: Green Beret

1	(1)	ACE	CASCADE	£9.95
2	(6)	VIDEO OLYMPICS	MASTERTRONICS	£1.99
3	*NEW!*	DRAGON'S LAIR	SOFTWARE PROJECTS	£7.95
4	*NEW!*	DYNAMITE DAN II (CLASSIC)	MIRRORSOFT	£7.95
5	*NEW!*	DAN DARE	VIRGIN	£9.95
6	(13)	FULL THROTTLE	2.99 CLASSICS	£2.99
7	(7)	MOLECULE MAN	MASTERTRONIC	£1.99
8	(5)	NINJA MASTER	FIREBIRD	£1.99
9	(4)	GHOSTS 'N' GOBLINS	ELITE	£7.95
10	(2)	JACK THE NIPPER	GREMLIN GRAPHICS	£7.95
11	*NEW!*	KNIGHT RIDER	OCEAN	£7.95
12	*NEW!*	KAI TEMPLE	FIREBIRD	£1.99
13	(19)	UNIVERSAL HERO	MASTERTRONIC	£1.99
14	(3)	KUNG FU MASTER	US GOLD	£7.95
15	*NEW!*	HEARTLAND	ODIN	£9.95
16	(18)	KANE	MASTERTRONIC	£1.99
17	(10)	GREEN BERET (CLASSIC)	IMAGINE	£7.95
18	*NEW!*	NIGHTMARE RALLY	OCEAN	£7.95
19	*NEW!*	SKOOL DAZE	2.99 CLASSICS	£2.99
20	*NEW!*	OLLIE AND LISA	FIREBIRD	£1.99

HOTTEST CLIMBERS

Hottest new releases this month: **Thrust** is Firebird's long awaited conversion from it's top selling BBC bash — it's a fast and furious budget shoot 'em up; **Trivial Pursuit** is the conversion of *THE* yuppie board game and



▲ Hot: Rebel Star



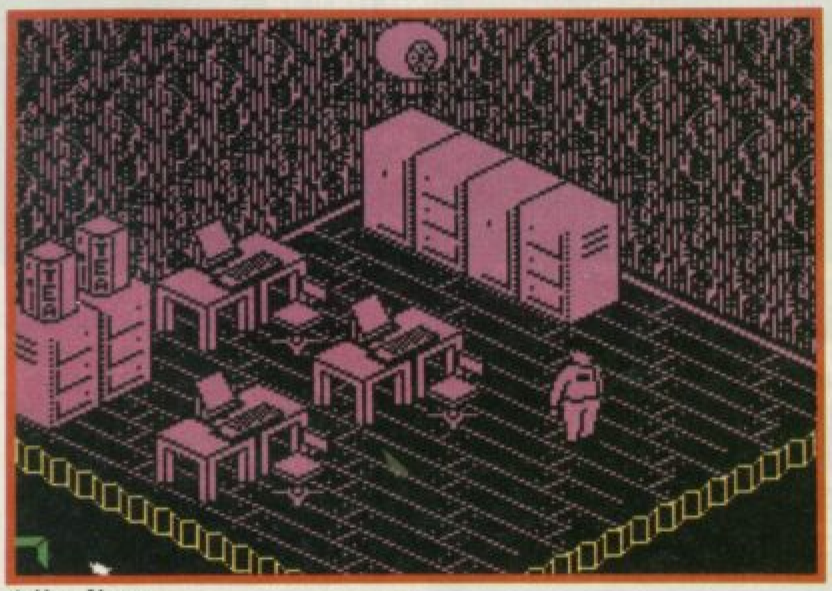
▲ Hot: Trivial Pursuit

★E★N★T★Y

Compiled by Gallup for *Sinclair User*

Fine flight simulator. Not much detail to get in the way of blasting things at speed	★★★★★
Smartly produced six-event sports game that works up a sweat. Daley on a budget	★★★★☆
Brave attempt to convert a laser disc game. The fact it's a multi-load game is irritating	★★★★☆
A Rolls Royce among collect and dodge games. Big, clever and addictive	★★★★★
Keeps the spirit of the original Eagle strip brilliantly. Immediately playable, brilliant	★★★★★
An elderly equivalent of Pole Position. At budget price it's worth a second look	★★★★☆
Imaginative, surreal and addictive. Packs more punch than superficially similar offerings	★★★★★
Poor quality. Not the Exploding Fist type game it may seem. Avoid	★☆☆☆☆
Another classic arcade conversion from Elite. Fiendishly difficult	★★★★★
Cartoon graphics and masses of brain teasers. This'll sort out who are the wimps	★★★★★
Not really a road game, not really a multi part adventure, Knight rider isn't really anything.	★★☆☆☆
A kick in the teeth for fans of martial arts. Flat graphics and flimsy plot — even at budget	★★☆☆☆
Not terrbly original perhaps, but a well implemented and appealing space adventure	★★★★★
Routine conversion from the C64 on which little thought or effort seems to have been expended	★★☆☆☆
Stunning to look at, delightful to play. It's magical and stylish	★★★★★
Dull wild west romp — really four games in one. Redeemed slightly by good animation	★★☆☆☆
More challenging than Commando. With more strategy too it wins hands down	★★★★★
Four-wheel fun with the accent on fantasy. Easy to score but tricky on the higher levels	★★★★☆
Now out on budget. Manic fourth formers go ape — still nothing quite like it	★★★★★
Graphically good but dull pot boiler. Predictable lousy plot but well executed	★★★★☆

unusually it's a highly creative and well thought-out translation from board to screen; and **Nexor** is a not-entirely-original edge-on 3D **Knight Lore** derivative but with first rate puzzles and great graphics



▲ Hot: Nexor

CHART ★ ★ ★ ★ BREAKDOWN

ARCADE

1	DRAGON'S LAIR	SOFTWARE PROJECTS
2	DYNAMITE DAN II	MIRRORSOFT
3	DAN DARE	VIRGIN
4	GHOSTS 'N' GOBLINS	ELITE
5	JACK THE NIPPER	GREMLIN

ADVENTURE

1	HEAVY ON THE MAGICK	GARGOYLE
2	THE BOGGIT	CRL
3	MINDSTONE	THE EDGE
4	JEWELS OF DARKNESS	RAINBIRD
5	PRICE OF MAGIK	LEVEL 9



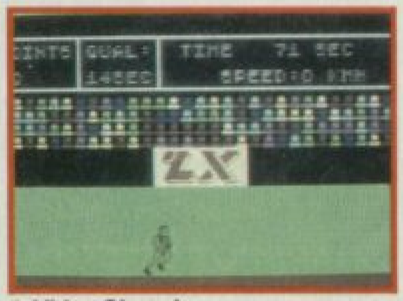
▲ Dynamite Dan II



▲ TT Racer



▲ Graphic Adventure Creator



▲ Video Olympics

STRATEGY SIMULATION

1	ACE	CASCADE
2	THEATRE EUROPE	PSS
3	TT RACER	DIGITAL INTEGRATION
4	TENNIS	IMAGINE
5	HEAD COACH	ADDICTIVE

WORK-OUT TOOL-KIT

1	GRAPHIC ADVENTURE CREATOR	INCENTIVE
2	ARCADE CREATOR	ARGUS PRESS
3	ART STUDIO	RAINBIRD
4	WHAM! THE MUSIC BOX	MELBOURNE HOUSE
5	LASER BASIC COMPILER	OCEAN

BUDGET £1.99 £2.99 SOFTWARE

1	VIDEO OLYMPICS	MASTERTRONIC
2	FULL THROTTLE	2.99 CLASSICS
3	MOLECULE MAN	MASTERTRONIC
4	NINJA MASTER	FIREBIRD
5	KAI TEMPLE	FIREBIRD

Bulletin our heads

I enjoyed your *Bulletin Board* article in the September issue very much, but as the Sysop of a Micron Bulletin Board I was dismayed to see that you had failed to include details of this system.

For your information, Micron runs on a Spectrum using between one and eight Microdrives and a VTX5000. It uses a similar page format to the viewdata systems but because of the VTX's inability to run in Reverse Prestel mode, it uses 1200/1200 half duplex.

Most Micron BB's contain lists of other boards, which are spread al over the UK. My own is called Safety-Net and is on-line Mondays and Wednesdays 8pm to 10ım on 041-778 3426.

Peter Holt
Mount Vernon
Glasgow

I am writing to your magazine to complain about the 'so called' communications article that was printed in this month's *Sinclair User*! Did John Gilbert know what he was talking about when he mentioned Bulletin Boards?



▲ **John Gilbert: underwater hero**

There are now numerous Spectrum BB's all over Britain, and believe it or not they actually run on the Spectrum.

The system I am going on about is called Micron. Do none of you ever read any of the databases on Micronet? 'Cause its mentioned all over it.

The Micron system was written by Nicholas Goodall who lives way out in the west coast of Scotland, Isle of Lewis actually, and runs with the Interface 1 and up to eight microdrives plus the simple VTX5000! This software has been on the market from Nick for the last year or so.

John Gilbert also said that you need a 300/300 baud modem to communicate with most BBs in this country. I must disagree with him on this point as most have auto-scan modems now, which switch automatically between 300 and the Prestel format (1200/75). He also states that it costs 6p per hour for Prestel. This is only true if you call between 8am and 6pm weekdays and 8pm and 1pm on Saturday. The rest of the time the only charge you have is page charges for which there are warnings before you access them informing you of how much they are. Most home users do not access at the times I stated for the reason of cost.

Star-Net, the last time I played, is not a true interctive game as **Shades** or the other MUD games are. To play **Star-Net** you inform the game master of your move and then the next day your moves are initiated.

My Prestel Mbx number is 506881184. Nick Goodall's is 108513147 and Paul Clevett's is 737352406.

Any of us can be contacted on Prestel and anyone can reach me at the address below.

Gordon Sibbald
20 Redcraig Road
East Langton
East Calder
West Lothian EH53 0JT

● *I get the idea the Micron BB fraternaty is vociferous. Apologies for leaving you out.*



▲ **A day trip to Eastbourne. Sinclair User would like to introduce Loilita our new games expert ready to handle your *Pokes* more expertly than either Hannah or Melissa. Exploitation? What exploitation?**

Not so dear

Not so dear *Sinclair User*.

Last month a perfectly good issue was ruined . . . and why? Because it was complete and utter Baldocks! Baldock in the letters. Baldock in *ZapChat*, Baldock in *Helpline* even! Still, at least it gives me the chance to do some more slagging off.

Firstly, Mister Baldock, are you a journalist? What other reason could there be for your pathetic attempt to twist comrade Kelly's fine words? (No offence to *Sinclair User*'s computer journalists, naturally.)

As for your next comment, **Kirel** and indeed **Elite**, makes **Cyberun** look like a day trip to Eastbourne. To my comrade, being unable to finish the over-rated **Knight Lore**, you ain't that hot yourself, ie you need *Pokes* for the amazingly easy **Cyberun**, not to mention a *Poke* in the ribs. So, James 'what's-an-IQ' Baldock, keep yer trap shut or else I'll pop down to Cambridge and brand you with a Commodore insignia.

Michael Wilson
The HDCP Leader
Walsall

PS. Citizens of Waterbeach, I pity you.

PPS. Get the address right.

● *Michael, we couldn't read YOUR writing so it's not our fault if the address is wrong, is it?*

I'd just like to point out to James 'a complete idiot' Baldock (September issue), that **Elite** does not look like **Space Invaders,** nor is it boring. Someone please tell him how to get out of the space station.

Ultimate's 'masterpiece' as you so incorrectly put it, is about as exciting as watching six tortoises 'run' the 10,000 metres.

Commander Dregg
Uckfield
E Sussex

● *This month's letters certainly turned out to be a load of Baldocks. No more please, otherwise the round filing cabinets won't be able to cope*

Playing close to your chess

I have just read your review of **Psi-Chess** and while I agree the graphics are superb the quality of play and response times are very poor.

I enclose a copy of a game played on Level A7 (three minutes per move). I think you will agree the program's play at that level is really poor. Moves 10 and 11 are particularly bad.

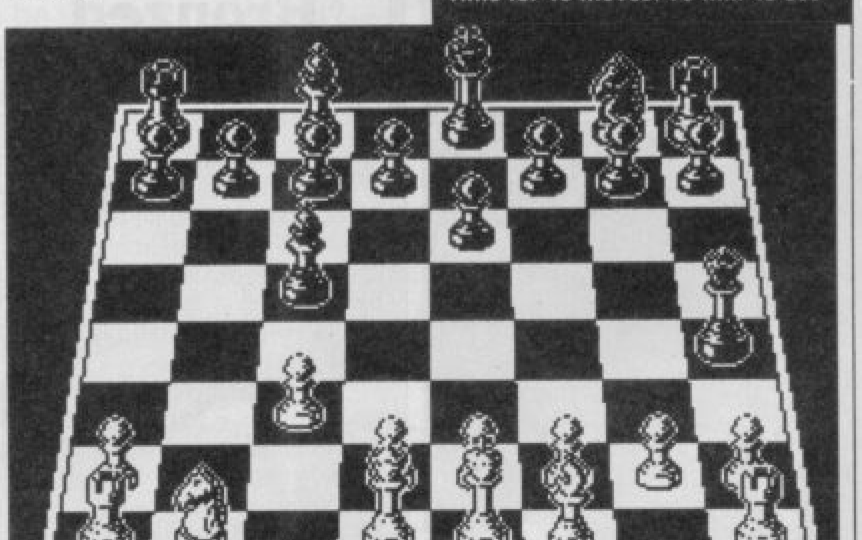
Paul C Robertson
Hollywood
Birmingham

PS. If you think my play was good the black moves were by Fidelity's Excellence chess computer set at 30 seconds per move!

Psi-Chess at Level A7

	White		Black
1	e2-e4	(0)	c7-c5
2	Ng1-f3	(0)	d7-d6
3	d2-d4	(0)	c5×d4
4	Nf3×d4	(5.32)	Ng8-f6
5	Bf1-b5+	(12.53)	Bc8-d7
6	Nb1-c3	(19.24)	Nb8-c6
7	Bc1-g5	(26.29)	e7-e5
8	Nd4-f5	(32.04)	Bd7×f5
9	e4×f5	(39.16)	a7-a6
10	Bb5×a6	(46.06)	Ra8×a6
11	b2-b4	(52.40)	Nc6×b4
12	a2-a3	(57.20)	Qd8-c8
13	Qd1-d2	(61.08)	Qd8×f5
14	0-0-0	(67.15)	Ra6×a3
15	Bg5Bf6	(72.37)	Ra3×c3
16	Bf6×g7	(77.01)	Rc3×c2+
17	Kc1-b1	(78.15)	Rc2×d2+
18	Kb1-a1	(79.43)	Rd2-g2 mate

Time for 18 moves: 79 min 43 sec



LETTERS

Boggit beater

I have finished the Boggit. If any one reading would like some help, then send an sae to the address below. If the reply is prepaid, then all queries will be answered.

Incidentally, I think that the new format is much better than the previous one.

Steve Griffin
34 Walton Park
Pannal
Harrogate
North Yorks



All that glitters

Thank you for publishing the first three paragraphs of my letter about US Gold's **World Cup Carnival** (September issue).

I can appreciate your reasons for not publishing the other three (lack of editorial space, not wanting to become involved in a legal wrangle with US Gold's lawyers over the possibly slanderous comments in my letter etc . . .).

However, being a liberal-minded, democratic sort of bloke, I would like you to point out to your readership that US Gold eventually replied to my letter of June 2 on July 30, apologising for any inconvenience suffered etc, and offering me a free copy of one of the following: 1. **Cyberun;** 2. **Legend of the Amazon Women;** 3. **Zorro;** or 4. **Bounty Bob Strikes Back.**

Therefore I would like to publicly thank US Gold for giving me my copy of **World Cup Carnival** back, together with my copy of **Cyberun** which I haven't received yet.

Hoping this puts the record straight.

M R Jones
Northam
Southampton

● *Hope you like* **Cyberun**. *Not one of Ultimate's best, but looking at the list US Gold is offering, looks the most sensible bet*

Rip-off printers

Why are computer printers so expensive?

I mean, are they so technically advanced as to warrant such a high price? Surely a complex computer like the Spectrum costs much more to develop and build than any printer, and yet most printers are more expensive. And if it's the mechanical parts that increase the price then why are most printers more expensive than something like a sewing machine, which is mechanically much more complex?

Yours incensed

Anon
Leeds

● *Who knows why printers cost so much? Who wants to know? I could understand it if you'd said something rude or offensive. But a question about printers? Surely that doesn't warrant going in mufty?*

But I digress. Printers tend to be expensive because they are more complex than something like a sewing machine. That said you can pick up a low-cost, superceded, Brother or equivalent for around £130



Maradona, singing his little heart out, in a scene from *Shanghai Surprise*. Mr Penn is in the kiddie car

Situation normal

Your September issue states on page 16 that you've been trying to make the magazine better.

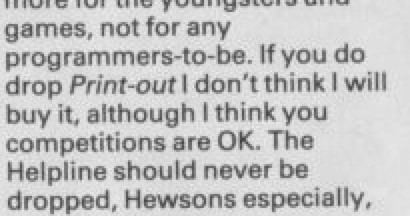
Well, please take a look at your 1984 issues. In my view its a pity you ever changed. A new Spectrum owner nowadays cannot possibly be expected to try to type in any programs from scratch. There's no beginners corner like the old magazine.

Your magazine seems today more for the youngsters and games, not for any programmers-to-be. If you do drop *Print-out* I don't think I will buy it, although I think you competitions are OK. The Helpline should never be dropped, Hewsons especially, and Sinclair Surgery.

Over the last six months the programs in *Print-out* have become lousy.

B Neal
Swansea

● *We have no intention whatsoever of discontinuing the* Print-out, Helpline *or* Surgery *features. People like them! Sorry you don't like* Print-out *— but people's programming expertise vary enormously. This month, for example, we have both Basic and machine-code listings to type in and the chances are few people are going to be enthralled by both! You can't please everybody at all times, no how, no way*



Australians wouldn't give a XXXX for any non-alcoholic lager

Bronzed wafer

All Wafadrive owners worldwide are invited to write to the paradise down under. The land of sun and sand, deserted beaches and rugged men.

Yes you've guessed it, Australia.

I'm proposing to swap tips and programs to owners of this marvellous machine, so write to the address below.

P Pascoe
23 Yerrawa Drive
Watsonia 3087
Melbourne
Australia

Looking for a View

I am looking for an old game called **Vu-file**. I have looked everywhere but can't find a copy. If someone out there can help me please, please, please Help.

Robert Dewardson
Winsford
Cheshire

● *Can do. Try Psion, the authors of the program. They're on 01-723 9408*

Positive education

I have recently bought a Sinclair Spectrum and have not been able to find any suitable educational software or games for children between four and six years old.

Can you help with names of any possible suppliers?

Carol James
Earley
Reading
Berks

● *Some of the most imaginative educational software is produced by Mirrorsoft (01-377 4837). The magazine* Educational Computing *is on 01-251 6222. And if anyone else is producing pre-school software please write and let us know and we'll pass it on*

Eastern piracy

As my family and I are a little isolated here any news from home is welcome and we look forward each month to receiving our copy of *Sinclair User* which, I may add, costs us £3 per copy. Nonetheless it is good value and contains excellent articles on new products and programmes.

Throughout the year we read your reviews on software and list them for purchase whilst we are home on vacation and as yet your recommendations have not let us down.

Original copies of software are difficult to obtain in Saudi Arabia as so-called agents copy and sell pirate versions. One such company lists a catalogue of over 300 programs which are all copies and range in price between £6 and £14 a copy.

Software is big business in the Middle East and so is piracy and manufacturers aren't getting a fair deal.

K Lewis
PO Box 4384
Jeddah 21491
Saudi Arabia

JON RIGLAR'S ZA CH



Believe it or not,I am sitting behind my typewriter with a bright red back, caused mainly by a day at the local beach under very hot conditions. People have been popping into the office every couple of hours to splash various lotions on to my aching back, but nothing seems to ease the pain. Summer is now over, and for those who missed it, it was one day long ago in August. Hardly seems like yesterday.

My main objective now is to get someone to buy me a Spectrum 128K+2 so I can give tips for the 128 as well as ye olde 48. Some luck. . .

Bobby Bearing

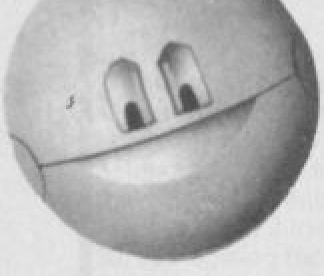
is a game I promised tips for two months ago. Now we've managed to make some up here they are, together with a trendy map. Nobody seems to like the game but I still think it's marvellous. S Cleminson and S Mitchell from Manchester sent in a great big map which could probably have filled *Zapchat* for a couple of months. For that reason, it was passed from person to person until it came back rather crumpled and shrunk — that's the version we've been able to bring you. Although you get plenty of time to complete the screens the guys also sent in a code to get you infinite time.

Loads of bugs have been reported to me and it certainly seems that even a top class piece of software is never 100% bug-free. The main thing to look out for is air vents — these can be very annoying and can also cause the computer to crash completely. So proceed with caution. Some of the air vents will not let poor Bobby down again and this has been known to cause problems in completing the game. Other air vents make the computer crash if you land on them too quickly. You go shooting upwards towards the roof and the next thing you know, you find the computer has reset itself.

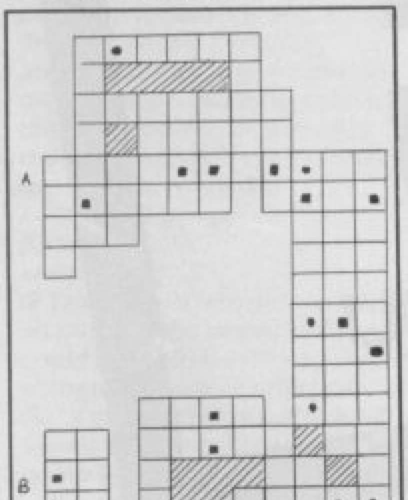
Here's the *Poke* for infinite time:

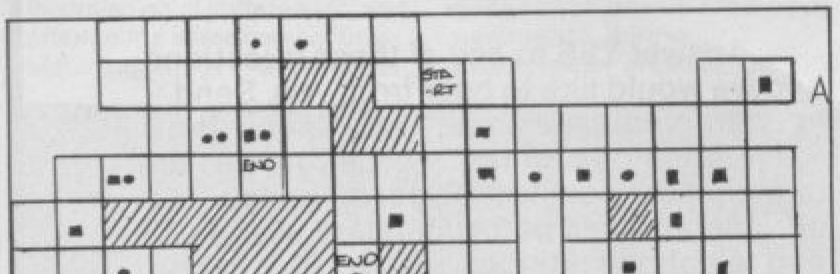
POKE 29688,175

The map doesn't show the area in any great detail but does show the basic detail of the layout.



Key to map: ■ moving block; ● balls (round spherical objects)





Now for something completely different. Jon 'ZX Sapper' Rose has just flung himself through the office doors waving a piece of pink paper frantically. Being a regular in the field of correspondance we immediately pounced on him and tied him to a chair. As Commode started to burn his toes, old Rose started to tell us some tips, most quoted in the lingo of people from sunny Bognor Regis. He spake thus: "Verily, I wish to give ye some tips for ye game from Imagine" —

Tennis

- Always serve standing as near to the centre line of the court as possible. You'll then be able to serve without 'fault' coming up all the time
- When it's the computer's time to serve, don't move until it has hit the ball. Sometimes it serves 'dummy shots'
- During play, try running to the back of the court as this will give you the maximum amount of time to react to the computer's shots
- As the inlay instructions included with the game are of no use whatsoever, those who have already bought **Ping-Pong** will find that the controls in **Tennis** are virtually identical
- When you're about to smash the ball, make sure you are as far to the back of the court as possible, otherwise it is highly likely that the ball will sail gracefully out of court
- You don't really need a wig, sweatband or to be married to Tatum O'Neil to play the game well



At this point, the team decided things had gone far enough and tried to do away with the poor devil. After a vicious struggle old Sapper was well and truly silenced but a few more words were emitted from his contraversal mouth.

"Verily and more importantly, I still think that ye Mad celt is more gorgeous than ye old Edgeley fellow. No, I don't know why John Gilbert has two left feet and finally I think I know who *Gremlin* is . . . it's . . . Arghh."

AP
AT

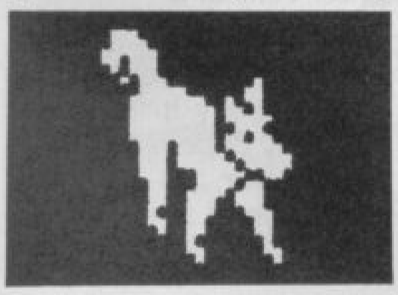
Pyracurse

is definitely one of the most complex, graphically stunning and difficult pieces of software out at the moment. (Thanks for the fiver Andrew).

Most of the team have given up trying to complete the game, and so are indulging themselves in the press release given with the game. Mark Osbourne and Matthew Stewdapple (Stewedapple? — can he be serious?) from London wrote to claim to be the first to complete the game. They say they did it on August 5 when they discovered where Daphne had hidden her father.

As nobody else has written to claim an earlier completion the guys appear to be the first. I've got an infinite lives code for the game: POKE 562789,0 should do the trick. Here are some basic tips for the game:

- Collect all the buckets of enzime when you can and keep them somewhere safe
- Try to watch where the monsters go and then keep out of their path. Some have set routines that are easy to work out and then avoid. Others may not be so easily fooled and are likely to give chase immediately
- Whenever you see a pile of dirt on the ground, get Frosbie to walk in front of it and stick his leg out to dig the ground. In these piles there are often special items to be found, such as enzime or a key
- If you come across a wall of what appears to be sand, then look carefully for a keyhole. If you have a figure on you, then this is probably the key. Try to place the key directly on to the keyhole. If you have the correct key, the wall will vanish. If not, try a different figure
- When your energy starts to decrease you can salvage your character by chasing after Daphers and indulging in mouth-to-mouth contact. Phew! Didn't know it was *that* sort of computer game.

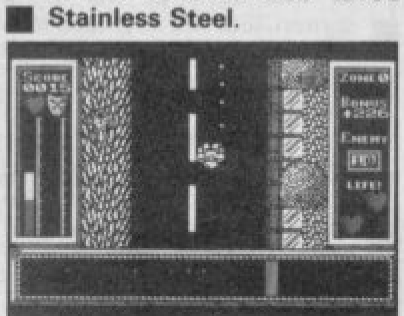




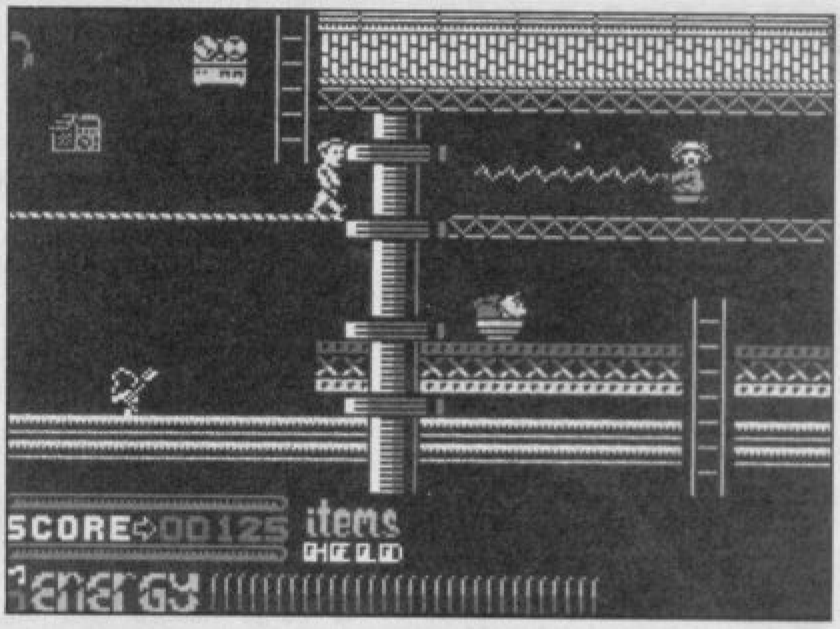
In charge of all incoming mail this month is Mark 'Now that's what Mark calls music' Taylor. He used to be in charge of research — that was until he bought *Now 7* and wouldn't let me listen to it. This letter was one that Mark read and then handed over after making sure the tip worked and that he got the highest score.

Stainless Steel

is that game and it looks extremely like **Spy Hunter**, both in graphic display and in plot. That said, I loved **Spy Hunter** and so also loved **Stainless Steel**.



You can cheat the game with invincible everything without the need to fiddle with any header programs. Adrian Singh from Northampton sent in the sneaky routine which comprises of a set of key-presses: To enter the cheat mode press the keys *a, l, i, k,* and *Enter* and you will hear a slight sound (Don't get too excited, it's only a *Beep*). This sound heralds the fact that you are now indestructable. Well, almost. You have infinite everything except shields — they still drain as normal. Remember to press all five keys at the same time or else the cheat won't work.



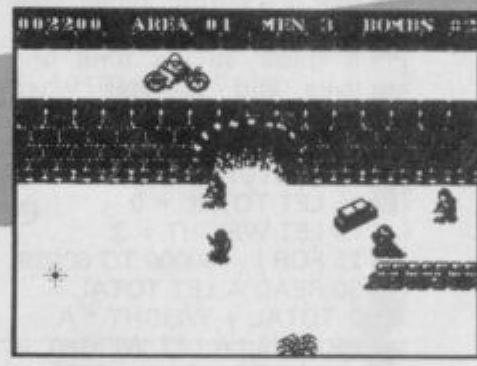
Dynamite Dan II

is one of the very best platform games and once again, Adrian Singh has sent in a cheat facility to get infinite lives. The *Pokes* give infinite energy and as a bonus you can destroy all the monsters. Note, the latter does not get rid of the dreaded Dr Blitzen. You can use either or both codes, but beware, without any aliens you can end up with unwanted items and no-one to take them from you.

```
5 REM DYNAMITE DAN II
POKES
10 FOR F=60000 TO 60049
11 READ A:POKE F,A
12 NEXT F
15 PRINT AT 10,2; "START
   DYNAMITE DAN II TAPE."
16 RANDOMIZE USR 60000
20 DATA 49,23,94,221,33
21 DATA 64,156,17,144,1
22 DATA 175,55,205,86,5
23 DATA 48,242,33,132,234
24 DATA 17,56,91,1,20
25 DATA 0,237,176,62,52
26 DATA  50,71,156,195,64,
   156
27 REM INFINITE ENERGY
28 DATA 33,0,24,34,74,113
29 REM NEED THESE LIVES:
   Gets rid of aliens
30 DATA 62,201,50,104,115
31 REM NEED THESE LINES
32 DATA 195,144,108,0,0
33 DATA 0,0,0
```



AS I disappear out of the office in search of the ever illusive cheeseburger, it's the turn of Matthew 'Devonport' Norman and Col 'Lead poisoining' Leeds to take over the typewriter for a while.



Commando

has been causing problems.

Over the last year, loads of different **Commando** codes have been printed in *Zapchat*, but one that works on all versions of the game has never been found. We had loads of thretening phone calls when one was printed in August and several letter bombs have arrived at Priory Court. David (the incredibly trendy Ed) has taken the matter very well, and has only hit Jon a couple of times. Needless to say, we are very interested in getting a code into print that works and we believe at long last, we have it!! It's been thoroughly tested, and tested, and tested. Several members of staff fainted at the prospect of actually seeing such a code work but here it is, in it's full glory.

```
5 REM COMMANDO CODE
6 CLEAR 40000
10 LOAD "" CODE
20 POKE 65267,203
30 POKE 65379,68
40 POKE 65380,15
50 POKE 65382,108
60 POKE 65383,165
80 FOR N=65482 TO 65497
81 READ A:POKE N,A:NEXT N
82 RANDOMIZE USR 65263
100 DATA 175,050,122,104,050
110 DATA 004,108,050,005,108
130 DATA 050,006,108,195,030
140 DATA 100
```

Well, there it is, and we expect plenty of phone calls and cards of congratulations for this time it actually works. The code was sent in by Neil Millican from Liverpool who also told us to try to change the **Bomb Jack** cheat printed in August.

JON RIGLAR'S ZAP CHAT

GHOSTS 'N' GOBLINS,

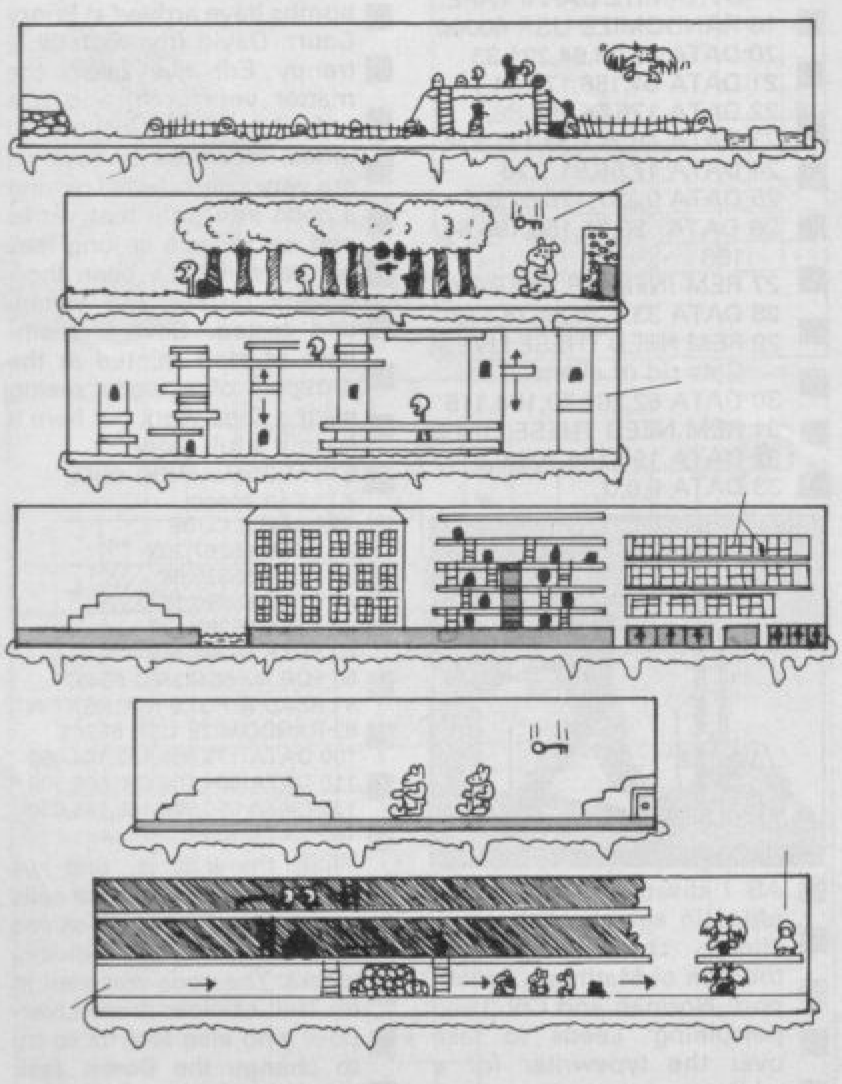
the No 1 smash — is still getting a lot of attention. A number of people sent in infinite lives programs for it — this one's from Julian Marshall.

It gives infinite time and lives and operates when lives reach 0:

```
5 CLEAR 59999
10 RESTORE
15 LET TOTAL = 0
20 LET WEIGHT = 2
25 FOR I = 60000 TO 60029
30 READ A:LET TOTAL =
   TOTAL + WEIGHT * A
35 POKE I,A:LET WEIGHT =
   + 1
40 NEXT I
45 IF TOTAL <> 51329 THEN
   PRINT "ERROR IN DATA":
   CLEAR:STOP
50 INK 7:CLEAR
   25000:PRINT "START
   GHOST AND GOBLINS
   TAPE"
55 LOAD "" CODE:RANDO-
   MIZE USR
6000:RANDOMIZE USR
65477
60 DATA 033,113,234,017,
   151
61 DATA 255,006,011,126,
   238
62 DATA 170,018,035,019,
   016
63 DATA 248,201,062,002,
   050
64 DATA 217,140,193,253,
   033
65 DATA 058,092,201,000,
   000
9999 STOP
```

The map is from Mark and Chris Moore and they sent in the following playing tips:

- The best weapon is the dagger
- Always keep moving
- Large nasties take ten shots to die
- When a key falls, shoot it and you'll get a few thousand points. Then another key will fall — collect it and move on to the next level
- Killer birds can strike at any moment



ACTION REFLEX

is another title keeping Julian Marshall awake at nights. At least it did until he developed this cheat code for infinite time:

```
5 CLEAR 27000
10 PRINT #1;AT 0,4;
   "START ACTION REFLEX
   TAPE"
20 MERGE ""
30 POKE 23988,54:POKE
   23349,201
```

POKE CORNER

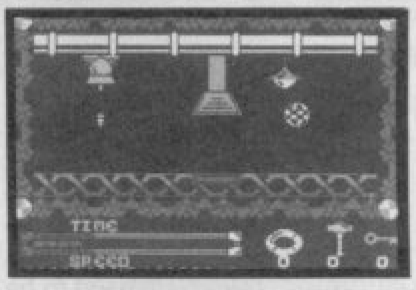
THIS month, we've dedicated the *Poke* Corner to those lucky people who own or have in their possession, a tape to microdrive transfer interface. This will allow the user to type in *Pokes* and various other cheat codes *after* the game has loaded. Good innit? So, those with an Interface III or a Microdriver pay close attention to these codes. Adrian Singh has been up to his tricks again, and here's some codes from him.

GHOSTS 'N' GOBLINS — invincible
POKE 39857,135
POKE 39858,50
POKE 39859,180
POKE 39860,191
— type in all four pokes.

SAM FOX'S STRIP POKER
POKE 23408,6
— Lose a game on purpose and make sure you have below 1000 points

JACK THE NIPPER — invincible
POKE 44278,58
POKE 44285,58
— type in both codes.

CAULDRON II — infinite lives
POKE 52133,0



```
40 RANDOMIZE USR 23935
50 POKE 50770,0:POKE
   50771,0:POKE 50772,0
60 POKE 50964,0:POKE
   50965,0:POKE 50966,0
70 RANDOMIZE USR 50000
```

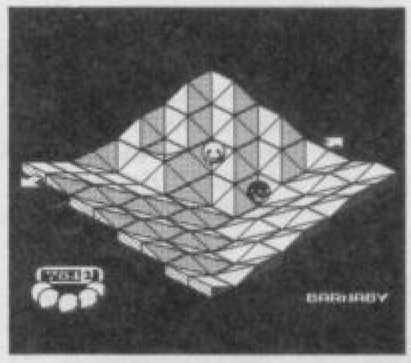
JACK THE NIPPER

has a bug in it according to A Harrison in Mansfield. Try this for a short-cut to the finish: Get the pea shooter from your bedroom and go to the right of the Bank screen. Get the key, take it to the museum. Drop the key and keep the pea shooter. Go through the gap in the wall, go to the other door and press *Enter* (watch out for the fireplace). On the shelf in the next room is a horn. Take the horn to your house, go up to the cat and keep pressing *Fire* until your score is 100.



BOBBY BEARING

When you find a brother, press the cheat (help) key and your brother will appear on the brother score board and disappear from the screen. This shows that the brother is safely home again with his family. This means that Bobby doesn't have to push his brother home.



Bomb Jack

was printed yonks and yonks ago, but never mind. Neil says to alter Line 60 and leave the rest as it is.

```
60 FOR F=65517 TO 65535
```

That's that done and the team will be making a comeback next month with some more great tips to make you drool and sweat. Also, we'll have some more maps and the up-to-date *Poke* corner. The tips team will be back to correct all Jon's mistakes and hit him whenever the Ed says so or whenever he mentions ★★★★★. In the meantime, start saving your pennies for the fabulous new Speccy — which we can't afford! ■

Whatever you want to say, say it to: Jon Riglar, *Zapchat*, *Sinclair User*, 30-32 Farringdon Lane, London EC1R 3AU.



In space no-one can hear your Spectrum Beep!

THE MAKING OF ALIENS



Mark gets close to the aliens

Aliens the computer game looks like it could be as big a success as Aliens the film.

John Dean — as project leader of Software Studios, the in-house programming team shared between Electric Dreams and Activision — has overseen the Aliens project through all its development.

"We began working on the project about nine months before the film broke in this country. The licence for any film is usually offered long before filming begins, when there are only draft scripts and some scenery designs to look at. You have to make an inspired guess that a particular film will be a hit."

Mark Eyles — who did Back To The Future — designed the all-important storyboard for the game. Important not only in terms of how the eventual game would be but also because of the way licences work: "The film company is giving you rights to characters, plots and designs it has created and it gets a final veto on what you are doing."

Storyboards have to be submitted to the film company for approval. This can be a nerve wracking experience. Movie firms are notoriously slow about giving permission and sometimes fanastically fussy. "Aliens went through OK but another film Big Trouble in Little China we are working on was rejected first time round because they reckoned we'd changed the plot and the characters too much — we had to redo the storyboard and come up with a totally new idea."

What does Mark Eyles look for in the script that'll make into a game? "You need hooks into the movie. Looking through the Aliens script it was the sheer unrelenting terror that came through and that is what we've tried to keep in the game".

He took just one element of the film — Ripley's strike force combing the corridors of the base in search of aliens — as the basis for the game. In the film each of the characters wears a video camera built into their helmets so the game uses this idea with you in the control room being able to view the base through the electronic 'eyes' of each of your team.

From a programming point of view this made things a whole lot easier, since the main action now takes place via a comparitively small on-screen window. The rest of the display shows a digitised picture of the character you are currently controlling together with his or her life support status panels, ammo remaining and so on.

Mark's idea was to combine the action of combat with the aliens with a strategy element. Each of your characters — when you're not controlling it — carries on, being instructed by the computer. At any time one of the team may get into trouble and you'll have to switch control quickly to that character to save it. It's a bit like keeping a bunch of spinning plates spinning — having to keep returning to each character to top up their morale, effectiveness and so on.

A terrifying moment scrambling up the vertical shafts in the space station ▼



For nine months a team of experienced programmers, graphic designers and musicians has been working on the Mark Eyles storyboard, turning into a finished game.

Mark's big problem was how to get suspense into the game. "Aliens is a horror film and we wanted that tension in the game.

"What we did was to make the game design work for us — the mere fact of only having a small viewing angle on to each player's position is scary." You can tell a life-form is getting closer and closer by a frenetic bleep. The faster the bleep the closer it is. Issue the instruction to turn. Is it behind? You catch sight of something off the corner of the screen. Blast it! Wait! It's one of your own team! You nearly wasted one of your own team.

"The main thing was the animation of the aliens had to be fast — frighteningly fast" says Mark. As you see them they turn and come straight for you — and you've got to hit them square-on or you'll just wound them.

"When we first mapped out the animation sequence it didn't seem scary enough. So we had to distort the proportions of the Queen alien somewhat to really give the impression of movement.

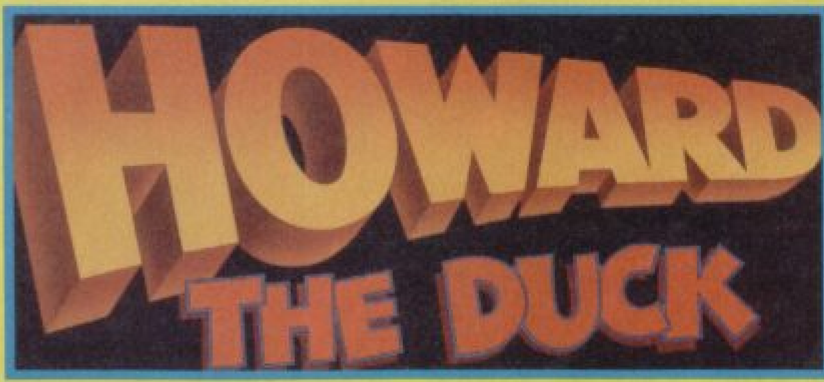
"She turns and rushes forward. And as she does so her jaws open wide to engulf you."



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Footballer of the Year
The game to answer every boyhood dream – the chance to make it to the very top of football stardom. Starting on your path to glory as a 17 year old apprentice with a Fourth Division team and only £500 and 10 goal scoring cards in your pockets, the footballing world is at your feet. Adopt the identity of a professional footballer and develop a career through the ups and downs of match days, transfer deals and injuries etc. Display your talents in Football League, U.E.F.A., F.A. and Milk Cup games and then if you're good enough the ultimate accolade of your sport, the Footballer of the Year Award.
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Trailblazer
Software Ltd.,
Sheffield S1 4FS. Tel: (0742) 753423

COMPETITION



Howard is just an ordinary kind of duck. He enjoys the average kind of duck activities, a little drinking with the guys, a little windsurfing . . .

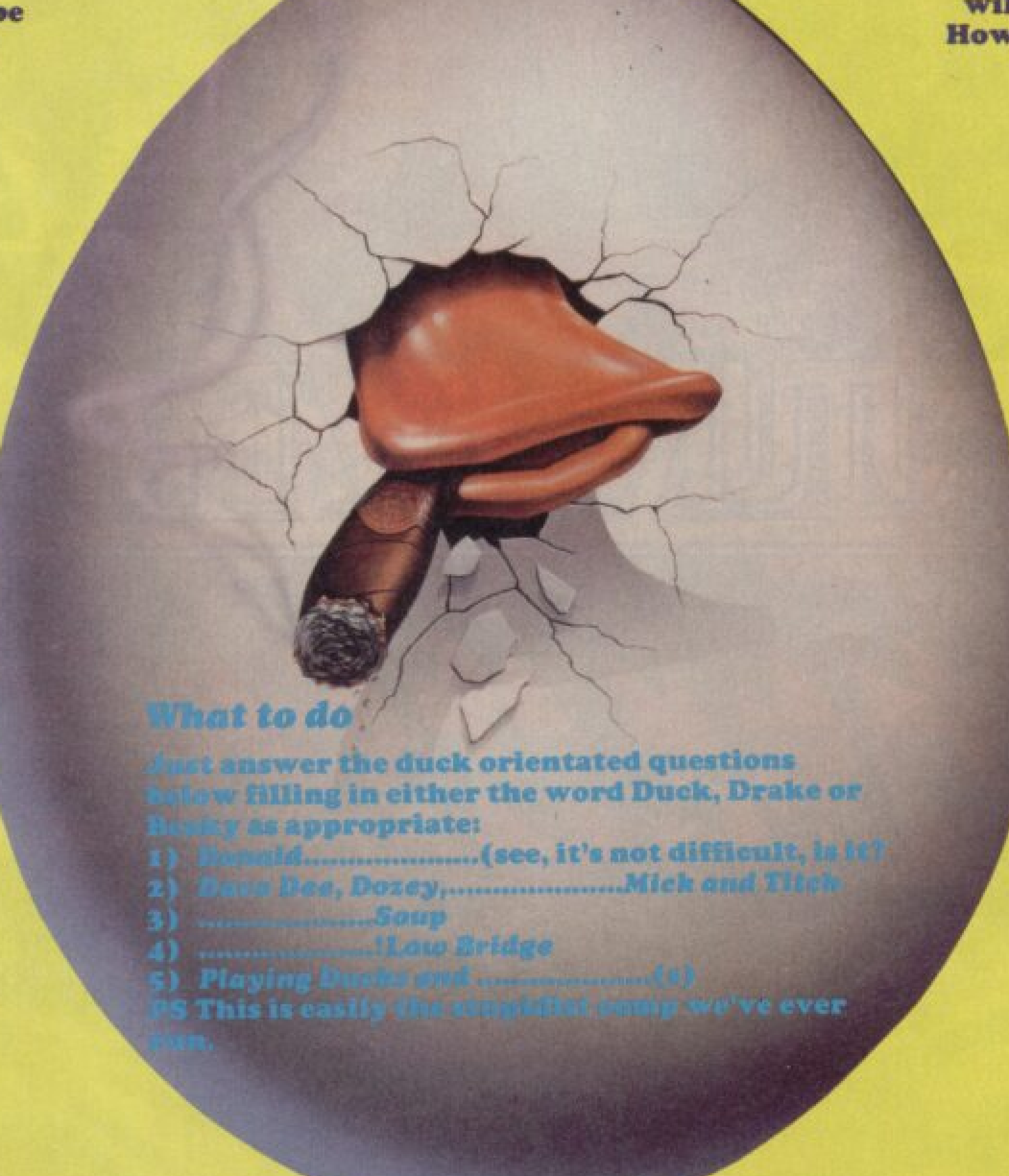
When Howard the average duck winds up in the world of people where he's expected just to swim around, quack a bit and be eaten life gets difficult.

Howard's adventures, originally chronicaled in a series of comic books are soon to be seen on the big screen and on your local computer, with an Activision game.

Sinclair User has Howard the Duck prizes galore — games, posters and tickets to the film — a whopping 90 prizes in all.

Twenty winners will recieve copies of the Howard the Duck game and a ticket each to see the film at their local cinema.

And fifty runners up, will each get a fabulous Howard the Duck poster



What to do

Just answer the duck orientated questions below filling in either the word Duck, Drake or Beaky as appropriate:

1) Donald......................(see, it's not difficult, is it?
2) *Dave Dee, Dozey,......................Mick and Titch*
3) *......................Soup*
4) *......................!Low Bridge*
5) *Playing Ducks and ....(s)*

PS This is easily the stupidist comp we've ever run.

Send your answers to The incredible Duck Compo, Sinclair User, 30/32 Farringdon Lane, London EC1R 3AU. Closing date for the competition is December 21.

Name ....

Address...

..

Answers

1) ....
2) ....
3) ....
4) ....
5) ....

*EMAP employees and relatives of Howard may not take part.

MANIC MEECE

Joysticks are just fine but mice are nicer. True or false?

Trendy they may be but the simple move-and-select options of mice make them ideal for icon-driven environments. Their freedom of movement also makes ideal for the-hand sketching facilities of computer-aided design packages such as Rainbird's Art Studio. **Unlike the inflexible joystick a mouse placed on a board or desk top can be used like a paint brush.**

A screen cursor is controlled by a revolving track ball under the body of the mouse while options or actions are carried out by the one to three clicker keys on its head.

A good mouse should be palmable and lightweight. The ball should be made of a rough textured material and the click switches should be within easy grasp.

Few mice are available for the Spectrum and QL but those that are vary greatly in hardware quality and software support . . . John Gilbert checks them out and gives his strictly no-mousing verdict ■

Star Mouse

Spectrum

Saga Systems claims its mouse package, badged from Puricorp of Spain, was given top marks by Amstrad when it was looking for a Plus 2 mouse. The hardware is functional, but it's the bundled graphics package which will grab the interest of the first time user.

The Star Mouse is smaller than its Kempston cousin and sports only one large click button. It has no sensitivity control but you can strip it down and clean it if fluff clogs the tracker ball's rotation.

The review sample contained a slight design fault. The tail lead is protected by a plastic sleeve at the junction with the interface. The sleeve rubs against the power supply connection and pushes the interface off the expansion slot. Result: the interface blows. Saga is changing the design but until the changeover's complete, if you have a sleeve on the lead cut around it at the base and pull it down the lead, clear of the power connection.

The only piece of officially compatible Star Mouse software is the neat icon controlled CAD package bundled with the device.

The icon panel gives access to nineteen Draw and control commands. It can be moved to left or right of the screen to suit your left- or right-handed needs or taken off the display when you're adding colour.

You can select two of eight colours in Draw and Paint modes, although the default is black-and-white. The drawing pen has a selection of seven nibs. You can also use a variety of paint textures or create your own.

To choose a texture, bring up the large texture window on the design screen and move the mouse up and down. The textures flash across the window and, once you've found one to your taste, you choose it with the click button. Texture design is done on the lower half of a window. Each home-spun texture is composed of a series of dots which you place with a click of the mouse.



▲ **Saga Systems presents the Star Mouse ● One click button and a smooth track ball**

The Draw mode shows off the mouse at its best. The rolling action is swift and you can take sharp design bends and arcs more easily than you can with the Kempston mouse.

The tracker ball won't work on the same variety of surfaces as the Kempston mouse but I preferred its fast-gliding cursor to Kempston's bigger, more flexible, ball. The choice, however, depends upon your situation. If you're very mobile you may have to run the mouse up a trouser leg or on a bendy pad of paper! The Star mouse is not in those circumstances.

The *Magnify* feature fills in the cracks in lines and arcs left by the manic movements of the cursor. There is only one *Magnify* setting, compared to *Art Studio's* three, and it is equivalent to x8 on the Rainbird scale. The normal-sized picture is shown next to the magnified image and a 2 × 2 character-square window shows which part of the display is in the *Mag window*. You can also display the *X,Y* position of the cursor if you want extra help in finding position on your picture.

When you've completed your design, if major alterations are in order, you can move portions of your masterpiece around the screen, or swap one part with another using the *Cut* and *Paste* facility. First, set up windows around the image you want to move and at the point to which you want it to move. Click the *Interchange* icon and the image shifts position.

Five text fonts are available to label your designs. You choose a font with the style option on the control menu — which also includes *Load* and *Save* functions. To position the print on the display select the *Write* icon and position the cursor on the design screen. A quick click and you can write your message (horizontally only) using the keyboard.

When you're happy with your design you can dump it to any Epson-compatible printer. The package does not, unfortunately, contain a printer driver which can be modified but if you own a Saga Epson-compatible you should have no trouble ■

The Star Mouse controls an arrow cursor ● Icons control shape, colour and text in the graphics window ▼



Star Mouse (Spectrum)
Price: £49.95
Click keys: 1
Sensitivity: no user control
Software:
Bundled-**Star Draw**
Compatible **The Last Word**
A sturdy, quick-moving mouse combined with an excellent icon-controlled drawing package. Little other software available
★★★★☆

Kempston mouse

Spectrum

Kempston's mouse package is compatible with all Spectrums and includes the mouse itself, an interface, and a specially coverted copy of Rainbird's **Art Studio** designer program.

The interface uses an Atari-type joystick plug and slots straight into the expansion port at the back of the machine. It's dead-ended but monitor and disc drive drive interfaces will happily share the expansion slot with it.

The mouse is supplied in three parts: palm-sized body, rubberised track ball, and a plate which holds the ball in the body. This handy arrangement means that you can take all the moving parts out of the mouse body to clean it. The rubber textured ball will grip even the smoothest of surfaces without slipping.

There is no movement sensitivity control on the mouse but Kempston has built in a software-controlled movement scale of one to five. Setting 5 forces the mouse to travel far and wide to achieve just a little cursor movement while Setting 1 the cursor across the screen with a short flick of the mouse.

The mouse itself seemed well constructed and instrutions supplied with the mouse operating software give *pokes* to allow the device to be used with a variety of different joystick-controlled software packages.

The Kempston version of **Art Studio** is the only piece of applications software supplied with the mouse package.

It's a menu-driven computer-aided design system which produces a wide range of *Paint* and



▲ Kempston Mouse and Rainbird's customised Art Studio ● A dynamic duo

Draw effects. Included also is a library of pre-defined shapes such as lines, triangles and circles which are created by click-selecting (using the mouse) a point of origin and definition points for circumference boundaries and points of traiangles and squares. The speed at which the mouse performs these operations depends upon your agility as an operator but, even if you're a neophyte, the mouse is considerably more flexible than either keyboard or joystick.

Art Studio defaults to keyboard input unless you select mouse during the printer/peripheral installation routine which you run through every time you load the program. Your choice should be a careful one as the AMX mouse option uses a different control standard to that of Kempston and, You can't change the input device once you've got into the package. By adjusting the mouse's sensitivity to movement, you can make the mouse suitable for either bold or intricate artwork.

Kempston-compatible **Art Studio** is unfortunately currently only available with the bundled mouse package. Rainbird, however, is working on a Kempston version which will be available shortly.

The Kempston mouse is a fabulous drawing tool and a natural companion to **Art Studio**, but it can be used just for the mundane task of menu control.

The Writer, Softechnics word-pro pack, is widely proclaimed for its Kempston mouse compatibility — with one proviso: you must have a microdrive and Interface One. Side 2 of **The Writer** cassette contains a Microdrive version of the word processor, together with its installation program. Installation on to cartridge is automatic after you've chosen to use keyboard or mouse and a version created for mouse will work with the keyboard but not vice versa.

The mouse has no effect until you enter the editor/menu modes by pressing the right-hand click button. You then use the left-hand key to select menus and the options within them. Again, the mouse saves time as you don't have to fiddle around on the keyboard or find specific control keys.

Unfortunately, Softechnics doesn't plan to make the standard versions of **The Writer** or **The Artist** — it's CAD package — mouse compatible. **Artist II** will, however, be out soon and it **will** be compatible with Kempston and AMX mice.

A sparse instruction leaflet with the Kempston mouse provides a minimum of information for getting it to work in Basic or machine-code programs. The mouse uses the *In* instruction to read its position in relation to the cursor on the screen. The *X* co-ordinate is read by *In* 64479;Y by *In* 65503, and the status of both click buttons is relayed. The co-ordinates are returned as eight-bit values corresponding to the relative movement of the mouse while the button is pressed.

A small Basic demo program is included in the notes but the process can also be applied in machine code ■

KEMPSTON MOUSE
Price: £69.95
Click Keys: 2
Sensitivity: software controlled
Software Bundled — Art Studio
Compatible — The Writer (**Microdrive version only**), Artist II
Well designed but little software either bundled or available

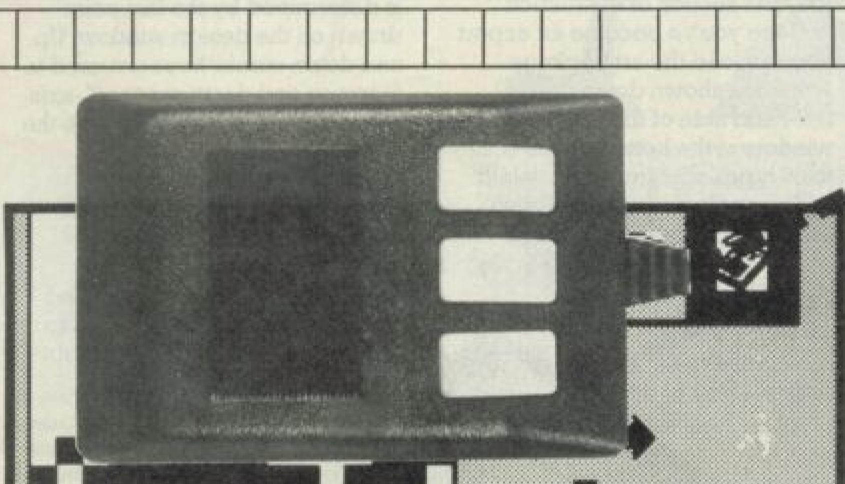
★★★☆☆

AMX mouse

Spectrum

AMS produces what is easily the most comprehensive mouse package for the Spectrum — the AMX. It's been around for more than a year and is regarded by many software houses as the standard mouse for their database, spreadsheets and graphics packages. Rainbird has taken this attitude with **Art Studio** and Softechnics, which currently favours the Kempston mouse, is about to take a nibble at AMX in **Artist II**.

It's the best dressed mouse in town with a rugged, easy to grip, body, a long lead which connects to a flat, Kempston-like interface.



◀ AMX mouse wins by a whisker ● Package contains comprehensive colour design utilities

The interface includes a Centronics printer interface which can be controlled with four AMX Basic instructions.

AMX is the only mouse to sport three click keys. They can be independantly programmed and AMS uses them to the limit of their potential in its graphics programs.

To prepare the printer option you must type **Mouse Off* which stops the interface from generating interrupts when the mouse moves. *LPrint* and *Llist* will then send data to your printer.

If you want to list a program, rather than doing a screen dump, you enable the Basic tokens by

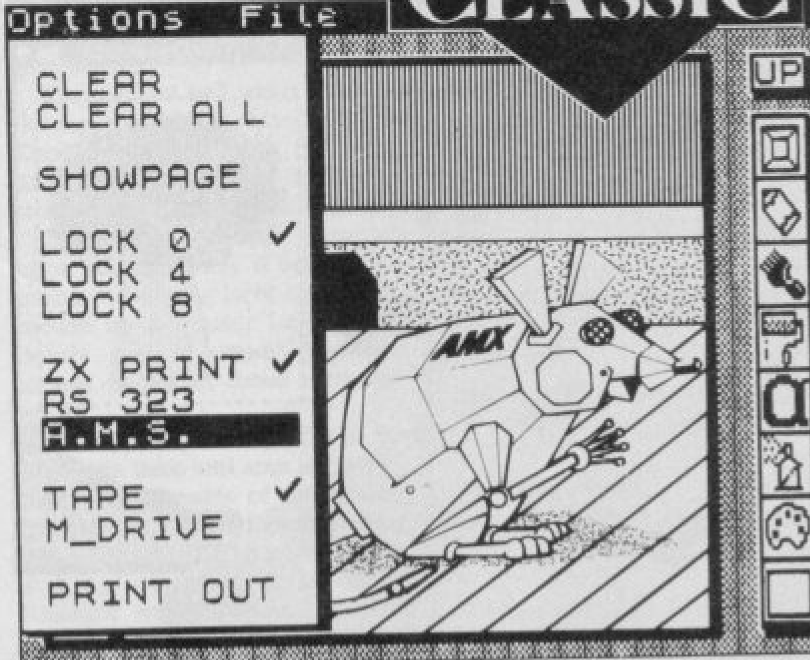
typing **Tokens* command. Your printer may not issue line-feed instructions automatically so the fourth extended Basic command, **LF*, produces a line feed as well as a carrige return.

The package comes with four artist packages, the simplest of which is **AMX Art**. It's similar to Rainbird's **Art Studio** but the icons are displayed at the side of the screen and the three click buttons are programmed *Execute* menu option, *Leave* menu option and *Move* mouse, and *Cancel* last order.

Drawing tools include a pencial, paintbrush, paint roller, spray can, palette, text layer and eraser. The pencil can be used to draw lines, the paintbrush can be programmed to use a selection of eight tips which vary in density and width. And the paint roller use textures set up in the palette option. There are 40 textures which can be used to paint lines of varying width on to the screen or fill shapes. The shapes include shaded box and circle.

The text menu gives you access to five type faces which can be printed at normal or double-height and, if you want to go over the top, in italics. The type fonts consist of standard Sinclair character set, Bold, and futuristic 2001.

AMX Art gives more control over its mouse hardware than any of the other packages on the market — which isn't surprising. For instance the *Lock* command will trap cursor movement in an invisible grid which has character squares either 4 × 4 or 8 × 8. The former is useful for accurate mouse positioning and drawing long straight lines while the latter enables you to keep colour within attribute boundaries.



▲ The AMX art utilities output to a wide range of devices ● *Lock* restrains the mouse in specific areas of the screen

Screen pictures can be saved to and loaded from tape or Microdrive. You can store your own effects or load in screens from professional programs.

The package displays all screens in black, white or shade.

To add colour to your designs you'll need **Colour Palette**. It's a short program but, nevertheless, effective in adding *Ink*, *Paper*, *Flash* and *Bright*. Just load in your screen, which has been exported from **AMX Art**, and set up the paint brush for the type of colour and effect you require. Then run the cursor over the screen and the colour appears. It's as easy as painting a wall.

While paint-and-play is an addictive occupation, particularly with a mouse, you'll soo want to control the AMX in your own programs — won't you!

The AMX Control Program extends Basic to incorporate mouse-orientated commands. There are 23 commands which create menus, find out which menu options have been clicked choose type fonts, display icons, set mouse sensitivity and define screen windows.

The commands are freely mixed with Basic and can use parameters such as variable, arrays and codes. AMS has included an icon designer — which works in the same way as a UDG designer. Using it you create and store icons for use within Basic or machine-code programs. There's no reason why you shouldn't even create your own operating system.

If you have problems with the technical side of mouse usage you can load the demonstration program on the second side of the AMS cassette. It shows the type of applications which can be written and shows the considerable power of the package. A four-function calculator and sliding puzzle are written in Basic but for speed and type of application they could equally have been written in machine code. Even my jaundiced eye could not tell the difference ■

AMX Mouse (Spectrum)
Price: £69.95
Click keys: 3
Sensitivity: range between 1 and 6
Software:
Bundled —**AMX Art, Mouse Control, Icon Designer, Calculator** and **Puzzle**
Compatible— **Art Studio, Artist II**
The best mouse around. And the most stylish. The snag is its excellence is reflected in the price!
★★★★★

Star Mouse

QL

The Star Mouse for the QL is a little different from its Spectrum cousin. The interfacing hardware is, however, slightly more rugged and the software has a different front panel which is easier to use.

The main interface connector fits into the QL's Rom slot and the other part is plugged into Control 2. The Rom automatically powers up the mouse control program while the BT connector feeds your commands from the click key to the computer.

The Star QL package, bundled with the mouse, contains all the features of the Spectrum program but contains on-line instructions and a considerably more helpful front panel.

On power-up, with either *F1* or *F2*, you have the choice of loading a brief user guide or the art program. The guide displays the front panel and describes how it is used. As each icon is discussed its image starts to flash on the screen to help you out with the layout.

The instructions are run a character at a time on to the display window. The tutorial then becomes interactive as you move the mouse around the screen to practice what you have been taught if you make a wrong move the cursor disappears and the program flashes *Error* and squalks loudly at you. When you've successfully completed an exercise, such as clicking a highlighted cursor, the program congratulates you and moves on to the next section of instruction.

Once you've become an expert you can load the art package. Icons are shown down the left-hand side of the screen and a window at the bottom gives access to 26 types of texture and colour.

The package includes *Brush* and *Spray* drawing tools. The spray takes its ink from the texture panel while for the brush you select thickness and colour. There are 32 brush types which are grouped into four thicknesses and eight colours.

Pre-defined shapes include *Line*, *Box*, *Ellipse* and *Circle*. The *Ellipse* option is controlled through four icons, located under the eraser. The centre of an ellipse is determined by the last point drawn on the design window. Up and down cursor keys are used to increase and decrease the *X*-axis while left and right manipulate the *Y*-axis. And ellipses can be rotated clockwise or counter clockwise by using the curved arrows on the icon menu.

Circle drawing involves a different procedure to that used by other artist programs such as **Art Studio**. You click two points on to the screen and the diameter of the circle is drawn to bi-sect both points. While the process is simple and useful when you have to know where the diameter will run it has its problems. You may for instance, want to position the centre of a circle on a line or in the middle of another circle. That's not easy when the circle is originated through its diameter and not its centre.



◀ The QL Star Mouse ● Similar to its Spectrum cousin but its graphics package boasts a better screen set-up

Star Art is as simple to use as any of the other icon-driven programs.

It may not include dramatic control applications or Basic sub-language or even a sensitivity control but its tutorial facility should prove useful to new mouse owners.

The main problem with the Star mouse is you'll have to make do with this bundled software or write your own ■

Star QL Mouse
Price: £49.95
Click Keys: 1
Software:
Bundled — **Star Art**
Compatible — none
Solid, though not innovative, hardware, with simple-to-use CAD software. The lack of compatible software, a problem with all the mice we reviewed, does mute its appeal
★★★★★

ASTERIX

ARCADE REVIEW

Asterix is, internationally, one of the most popular comic strips ever. Never quite as popular over here as overseas, the cartoon stars the little Gaul, his fat friend Obelix and the druid Getafix.

It's 50BC and Gaul has been invaded by Roman legions, save that is, save for one small village which refuses to succumb to the might of Caesar's empire.

Melbourne House, which has made something of a specialty of translating fictional characters into computer games — **The Hobbit**, **Sherlock** and **Lord of the Rings** — has now released **Asterix and the Magic Cauldron**. Only six months later than intended, but as with **Fist II**, release schedules have never been Melbourne's strong point.

Asterix is a mix of graphic advenure and arcade action. The graphics themselves are beautifully done — particularly the backgrounds.

Asterix and Obelix are looking for seven pieces of Getafix's magic cauldron, which was shattered in a moment of stupidity by a mighty kick from Obelix.

Vitalstatistix, the tribal chief, who is only afraid of one thing — the sky falling on his head — orders Asterix and Obelix to recover the missing pieces so the village blacksmith, Fullyautomatix, can reforge the whole thing.

What you find in game terms are 50 different screens of action, covering the Gaulish village, the forest, Roman camps and Rome (or Roma, if you prefer). These screens are peopled by wild boars and Roman guards.

The action — fighting soldiers and so on is shown using a curious window zoom effect.

HINTS AND TIPS

- Always take a key when entering the cells
- Drink the magic potion when you are faced by the gladiator in the arena
- Don't run out of hams. If your supply is getting low, zap a few wild boars. If you run out of hams Obelix will stop following you around — and that's bad
- An uppercut is often effective against Roman guards, but one is never enough — keep hitting
- Make a map as you go



▲ Shows the snappy zoom-window effect ● Asterix is about to get beaten up by a Roman

For example, bump into a wild boar and a zoom facility brings the arcade action into close up. A box containing Asterix and the boar is projected on screen. Each character's stamina is displayed at the side of the box and you must kick, punch and pummel the boar into submission.

Fail and Asterix loses a life, shown graphically by Asterix flying backwards out of the box in a sitting position (known in skiing circles as the English or flying toilet position).

Succeed and the boar's stamina rating will decrese to zero, whereupon it will keel over.

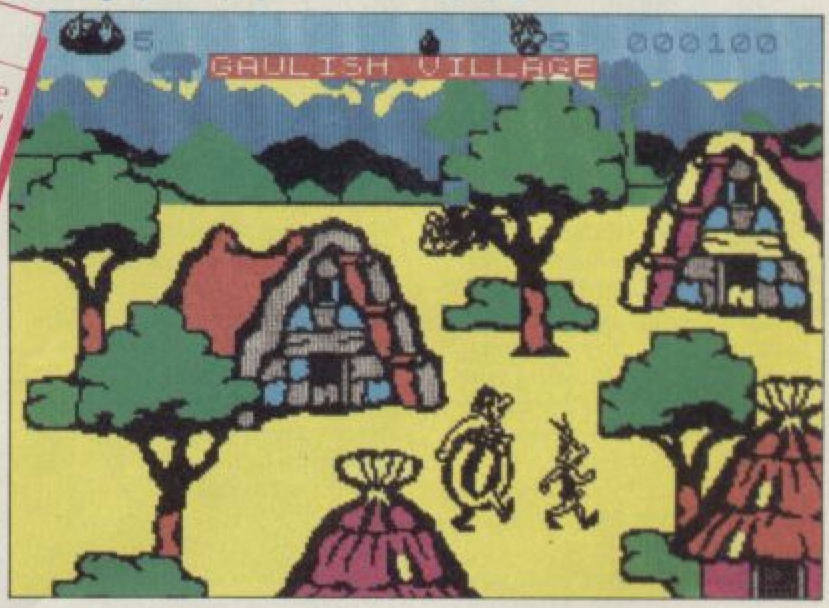
Roman guards are armed with spears, but otherwise the fight scenes are similar. However, if you don't attempt to bash the guard, he may ask you if you want to surrender and you'll end up in a cell in Rome.

The only exit from the cell opens on to the arena. Here you do battle with a hyped-up gladiator.

You'll have to fight and win — he's carrying a cauldron section.

Knock him dead and he'll drop it — it's easily identifiable as it pulses as if with a magix force ■





FACTS BOX

Clever graphics keep the spirit of the cartoon and the game play is refreshingly unusual

ASTERIX ★★★★

Label: Melbourne House

Price: £8.95

Memory: 48K/128K

Reviewer: Brenda Gore

SOFTWARE STAR RATINGS

All software reviews carry a star rating, the basis of which is value for money programming, graphics, speed, speech and sound presentation and addictiveness

★★★★★ **Solid gold. Buy it**

★★★★☆ **Well worth the folding stuff**

★★★☆☆ **Pretty average**

★★☆☆☆ **Very poor. Probably over-priced too**

★☆☆☆☆ **A total rip-off. Complain loudly**

ARCADE REVIEW · TOOL-KIT REVIEW · WORK-OUT REVIEW · STRATEGY SIMULATION REVIEW · ADVENTURE REVIEW

Each review carries an icon which shows the type of software.

Arcade is for animated games, which in general, reduce the life span of your joysticks.

Toolkit covers programming utilities which improve the quality of home-made software or packages which make machine code easier to write.

Work Out, software which can be used in the home, such as car maintenance or home finance.

Strategy and Simulation are games where thought, planning and judgement are the principle skills required.

Adventure includes either graphic or text adventures.

FIRELORD

Stephen Crow's programming history reminds me of Amstrad. His stuff is not particularly original, but it does ring some interesting changes on some familiar ideas and sometimes he does it better.

So it is with **Firelord**, the first offering from Stephen now that he has left Bubble Bus and joined Hewson.

The cruel and cynical will say that **Firelord** is **Attic Attac**-meets-**Sabre Wulf** and thus dismiss it as yet another Ultimate clone. But it's a very, very good Ultimate clone: fast, vast, visually stunning and tremendous fun to play.

The background is a sort of Walt Disneyesque tudor backdrop — the land of Torot — where all the inhabitants have bene cursed and turned into ghostly apparations — a little like Rhyl on a Sunday in fact. You have to get the pieces of an eternal youth spell to trade for the Firestone which will release everybody from the trance... etc, etc.

It so happens that the inhabitants are the kind of cute little assorted yokels that fill Ultimate games and the hero if a little knight with a big helmet. Apparitions materialise a few seconds after you enter a location in an Ultimatesque mini-explosion and wander about aimlessly, bumping into you and getting in the way.

You do get to defend yourself from the inhabitants of Torot and kill them in large numbers, which is a pleasing but futile pastime, since they keep on coming. To start blasting you need one of those all-purpose magic crystals — you should find one lying about somewhere, although there is a lot of ground to cover, literally hundreds of screens.

Other assorted objects you





▲ Recognise the little character in the helmet? ● A motly collection of zombied townspeople prepare to attack

FACTS BOX

Looks like Ultimate circa Sabre Wulf but is vast, well designed and not without original ideas. Lots of fun

FIRELORD
Label: Hewson
Author: Steve Crow
Price: £8.95
Joystick: various
Memory: 48K/128K

Reviewer: Graham Taylor

★★★★★

may find scattered around include food (=energy), crystals, hay (?), and some easily identified objects. Pick them up by running over them.

All this stuff is hardly anything new.

Firelord does though have *some* nicely inventive touches that I haven't seen elsewhere. There are small details like the ice flames you can set burning by running away even more quickly). More significant is the trade option which forms an essential part of solving the game. Objects you collect can often be exchanged for tips, guidance, spells and other objects on entering one of a number of houses owned by certain key figures in the game.

The trading section is a



Someone's house ● The open door means you may enter ● The 'Zap spell (top right in the status display) could be exchanged for something else ● But what? ►

change from the usual Ultimate-style backdrops. The screen displays the owner of the house you have entered — with an animated head which turns to look left and right, the objects you have on offer, the objects the owner has on offer and a hand icon. Ordinarily you use the joystick to select one of your objects and one of the owners objects thereby offering a trade. If it is accepted the

Entering the wood ● Three men with pickaxes don't want you to leave ● Spell power is at zero ● Three lives left ● Energy level is high ▼





GALVAN

Galvan is odd. It's sort of **Manic Miner** meets **Galaxians** – platforms, ladders, and swirling hoards of flying aliens.

Your well-animated, largish figure kicks off standing on a platform in a bewildering alien landscape. Initially you'll find your surroundings to be of a rocky nature, but as you move further into the game, other backgrounds will reveal themselves.

The playing area is quite small – about half the total screen width but the lack of on-screen space is more than compensated for by the speed of the scrolling. While you stroll around your environment, in a style a bit like **Doctor Who and the Mines of Terror,** the screen will lurch around in a very effective – if not particularly elegant – manner. This isn't scrolling – it's jerking – but it never claims to be anything else. When you go down stairs, the whole screen shudders up and down like it's being shaken about all over the place. Suddenly you're dive-bombed by a swirl of alien fiends – flying in **Galaxians**-style formation. As fiends go, these little critters are pretty mean. They come in a number of shapes and sizes, ranging from nasty little triangular things which lurk on the floor, waiting for you to walk past, to wacking great boxes





▲ Another house to explore ● Dodge the flame which rises and falls intermittently

ARCADE REVIEW

SINCLAIR USER CLASSIC

object will appear in a third column and you may take it. There is, however, another way of doing business...

You can steal! When the owner turns away you can try to press the hand icon, dash over with the cursor and press the object you wish to steal and finally press the exit icon. Do it in time and you get the object for nothing. Should the face turn and 'see' you then you stand trial.

The trial is a little like those options on gambling machines where win/lose flashes alternately, except that in this case it's guilty/innocent. Careful timing might get you off — the trouble is you have to go through the process three times with guilty/innocent flashes getting faster and faster — it isn't easy and you could lose up to three lives — crime doesn't pay (unless you are very good at it).

I guess **Firelord** does for **Sabre Wulf**-period Ultimate what **Dan Dare** did for **Manic Miner**, ie it made up for its lack of basic plot originality by being beautifully designed, excellently programmed, bigger and by ringing a few more changes here and there it diffuses any serious claims of a rip-off.

And, because of all this, **Firelord** is a lot of fun ■

◄ Finally you're there! ● Despite umpteen alien fiends, drained power and attribute problems, you reach your goal... ● The Alien ● Who will win?

with tubular arms. Although the latter do very little to your energy level, they look very impressive indeed, so they must be desperately important.

Some fly around in menacing little squadrons, diving to head-height in order to provide an extraordinarily dangerous haircut.

But the most impressive form of beasty, is the alien who looks very similar to yourself. He walks around, and punches in a most realistic manner.

You too can resort to that most primative means of attack. In fact I found it rather effective. Also available as a method of self defence is a form of ray gun which – when operated – sends out a beam of light blue, um, light, destroying anything in it's way.

You don't get to use such splendiferous weapons (the other one is a straightforward pistol) without working for them, though. You must seek out the horrendously illusive blue triangles, which will let you use either gun.

FACTS BOX

An aggressive little conversion from the coin-op original. Lots of movement and killing. Everything you need

GALVAN
Label: Ocean
Price: £7.95
Joystick: various
Memory: 48K/128K

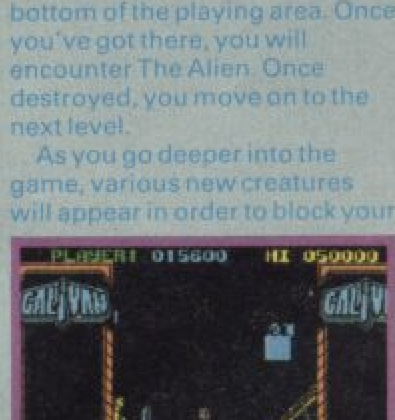
Reviewer: Jim Douglas

★★★★☆

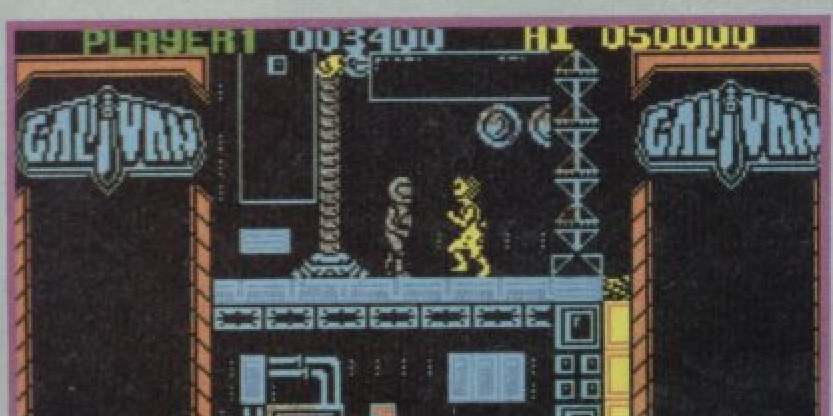
It a continual stream of mindless violence is not all that appealing you can opt for a more passive existence by simply attempting to dodge the aliens. You can jump and duck in an attempt to avoid death. Obviously, you fail with remarkable regularity.

The best plan of action is to work gradually down the screens moving left and right, in order to work your way to the bottom of the playing area. Once you've got there, you will encounter The Alien. Once destroyed, you move on to the next level.

As you go deeper into the game, various new creatures will appear in order to block your



▲ You zap an alien with a blue-beam ● But watch out for the giant fag-lighter!



◄ In the computer complex ● Although you look lost, don't bother to ask the approaching guy for directions ● You'd regret it

path. While underwater, for example, some shark-type beasts will swim around and drain your energy. In the computerised area, your foes are much more mechanical.

And you can fire while jumping. Although some of the movements are a little unresponsive, it is possible to leap into the air and shoot down an approaching horde.

A useful two-player option is also included so you can play against a friend.

Some of the aliens stun on contact. If you are unfortunate enough to run into one of these, you will be frozen to the spot for a few seconds and, until the blue border has vanished from the screen, stuck you stay!

At times, there is an awful lot of activity on the screen. The programmers have managed to contain the action very neatly, and everything still runs smoothly.

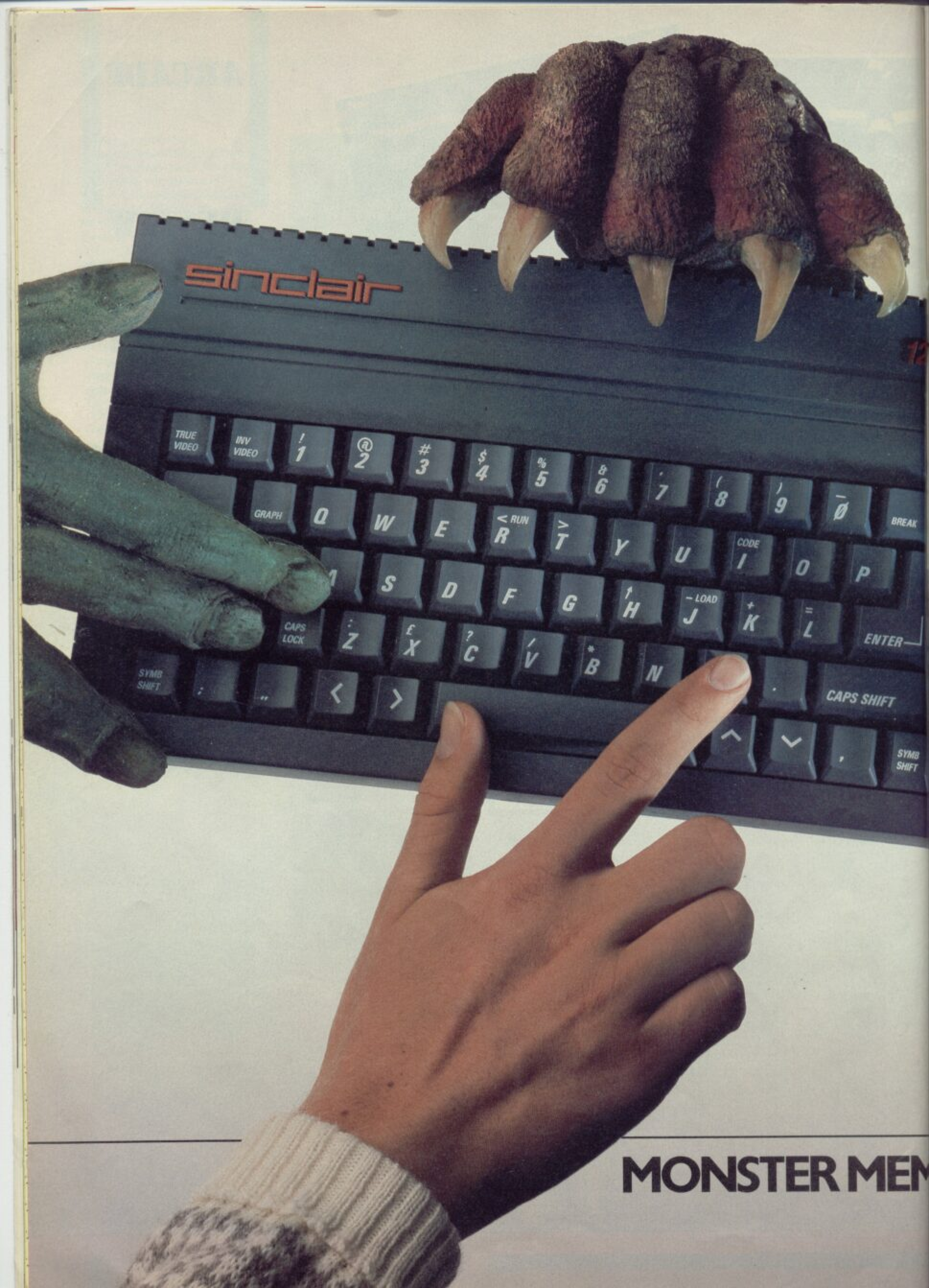
Galvan is hardly the most original game in the world. It is, on the other hand, fast, smooth, and surprisingly vicious ■

HINTS AND TIPS

● Stay clear of trouble! Wait for the bad guys to get out of your way when possible. Try to anticipate their flight patterns
● Make a map if you can, and always try to plan your attack before committing yourself
● Reserve your firepower, and re-charge your energy by keeping out of the alien's path after a fight. Don't loose off any round that you can't afford
● Progress downwards and alternate left and right across the screens to find the quickest route down to the alien

Owing to the wonders of modern technology, the screen goes blue ▼




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STRATEGY SIMULATION REVIEW





Baseball in the US is a good deal tougher than its UK equivalent — as the C4 screenings this autumn will prove!

Big bucks, fast action and battling bravado both on and off the pitch. Sponsorship, hot dogs and hype. It's the American way of sport.

And now its all being brought to life in **Hardball** a sports simulation from a new company, Advance. Judging from a first look, Advance is hoping to find a gap between the poorly animated Ocean-style sports simulations and menu-driven programs like those from CCS.

Hardball manages to be a very neat combination of animated perspective graphics — covering the main action — and clever joystick controlled menus giving the strategy.

The two teams — *Champs* and *All Stars* are already set when the game begins. Unless you want a two-player game the Spectrum takes the *All Stars*. They're favoured as the home team but if you're not confident of a win, you can change the venue in your favour.

The only other setting you need to worry about, before you can start the game is something strange that goes under the term 'Intentional Walk'. This turns out to be to do with deciding if your hitters standing on first, second or third bases run only if your batsman runs or if they can take it into their own heads to run, even if the current batsman hits and chooses not to. It doesn't crucially affect the proceedings if you're just getting started.

The great strength of **Hardball** is you can switch between all three parts of the game — team selection, batting and running — by using the *Break* key whenever you choose.

It doesn't matter if you're about to bat — you could still press *Break* to take a look at your team and bring on a substitute.

The team lists initially show the name of a player — Cram, Tramiel and Lineker to name but a few — quite what any of them are doing here is beyond me, but there you go. The selection board shows a player's position in the team, type of batter or fielder — whether he's left- or right-handed — and his game details.

The performance data isn't just there for decoration. It tells you how well a player's done during the season while his position and the way in which he holds his bat or catches a ball will determine how you play him.

If you select to bowl, your bowler has four speeds at which he can pitch, selected by menu from the top of the screen. Then there's the pitch angle menu. Here again, four types of pitch including Outside and High Pitch.

Once you've chosen your bowling attack the ball will shoot towards the batsman. If he misses the catcher might catch the ball in his glove. The umpire will shout 'strike!'. If the throw was legal the batsman will then have one strike against him. Three strikes and he's out.

When you're in to bat the batsman has only one menu to control — whether he uses the bat to take high, low or body shots. Selection is part guessing game and part skill, watching the bowler in front of you for the slightest move. In the real thing the batsman shouldn't look behind him but here you can tell where the bowler is about to pitch by the way in which the catcher moves his glove.

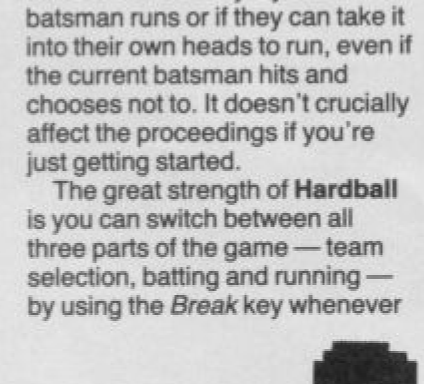
Smash the ball as hard as you can and pelt for the first base. All nicely shown in animated close-up.

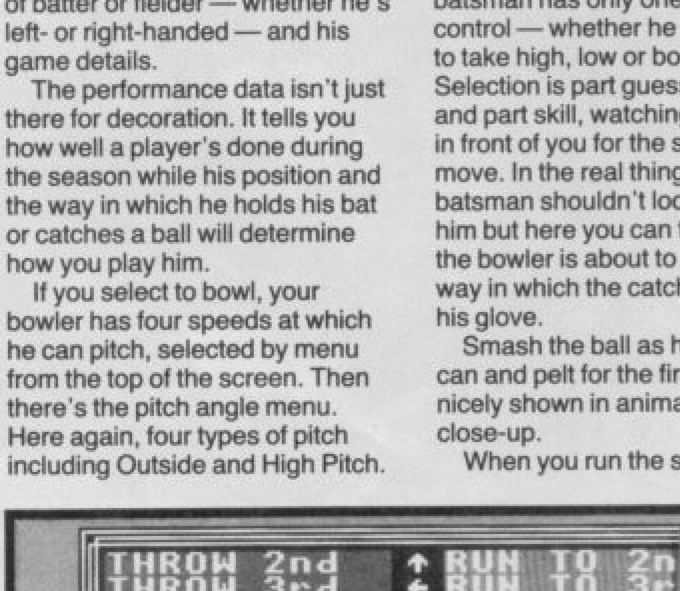
When you run the screen view switches to an overhead one with tiny dots representing the players and fielders. If you get to first base you bat again with your next team member.

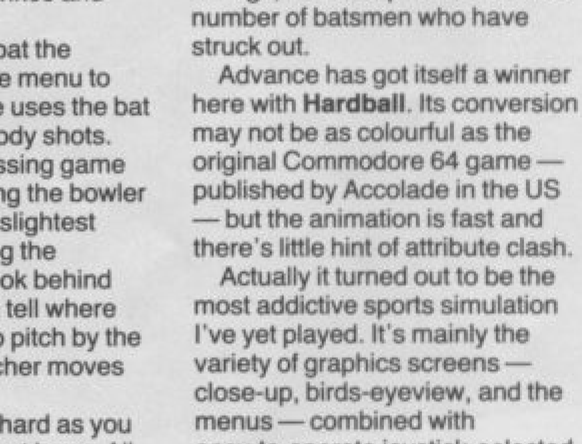
The action is fast and as each player comes home your score-board at the top of the screen racks up the runs for the team while keeping a log of your innings, the balls pitched and the number of batsmen who have struck out.

Advance has got itself a winner here with **Hardball**. Its conversion may not be as colourful as the original Commodore 64 game — published by Accolade in the US — but the animation is fast and there's little hint of attribute clash.

Actually it turned out to be the most addictive sports simulation I've yet played. It's mainly the variety of graphics screens — close-up, birds-eyeview, and the menus — combined with easy-to-operate joystick-selected options which makes programs like **Football Manager** look dated and very primitive ■



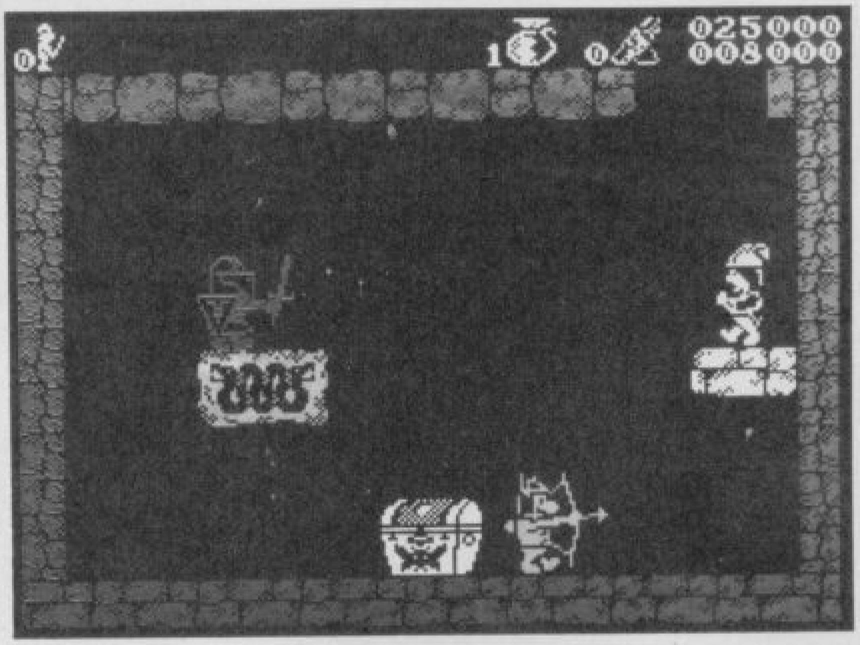




▲ The umpire prepares to call it a 'Strike' ● Only if the catcher grabs the ball in his gauntlet though

◀ An overview of the field ● The player on first base decides to run for second

ARCADE REVIEW



FACTS BOX

Utterly awful in every way. It's the kind of thing that loses good software houses hard-won representations for quality

CONQUESTADOR
Label: Melbourne House
Author: ERBE
Price: £7.95
Joystick: Kempston
Memory: 48/128K

Reviewer: Graham Taylor

★☆☆☆☆

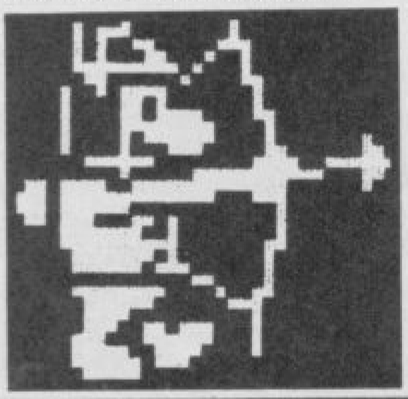
CONQUESTADOR

Conquestador is the game with everything. Attribute problems, naff unoriginal plot, boring design, it's dated, cliched, tedious, vastly overpriced and it has a terrible name.

If Mastertronic or Firebird had released this one it might just crack it as a nothing-special £1.99 cheapie.

Melbourne House is trying to get £7.95 for the stupid thing. Things must be bad.

What is it? Well it has this comic knight trying to collect three magic star stones. These are hidden among some forty caskets — each of which looks exactly the same.



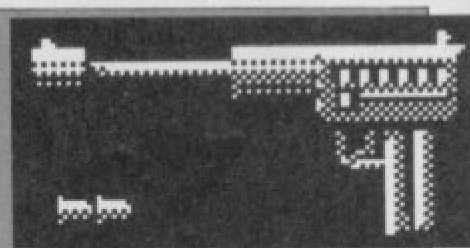
Your little knight wanders around a vaguely **Spellboundish** world (except that the sprites are very inferior, more flickery and less inventive). The main obstacle in this game is continuous assault by bow-weilding knights. These are all exactly the same as well, although they vary in colour.

I always think the mark of a really bad game is the size of the bounce when the jump button is used — games with really enormous bounces that have you zipping right over the screen are always bad. Guess what happens here.

Exciting things you can do in this game include, replenshing arrows, replenishing lives and finding keys. Even more exciting things include turning into a dragon (the game itself gets half a star for that) and transporting (this features an opening and closing giant mouth and wins the game the other half star it deserves.

Actually the best thing about the game was the press release which actually mde the game sound pretty good until you realise it resorts to that old PR standby — not telling the whole truth. Thus the game we are told has "solid, finely detailed perspective graphics". It doesn't. And we are told the game will "have you reacting faster than you can think". Does that seem to mean that the game is not as as slow as it seems, or am I going mad? ■

CAPTAIN KELLY

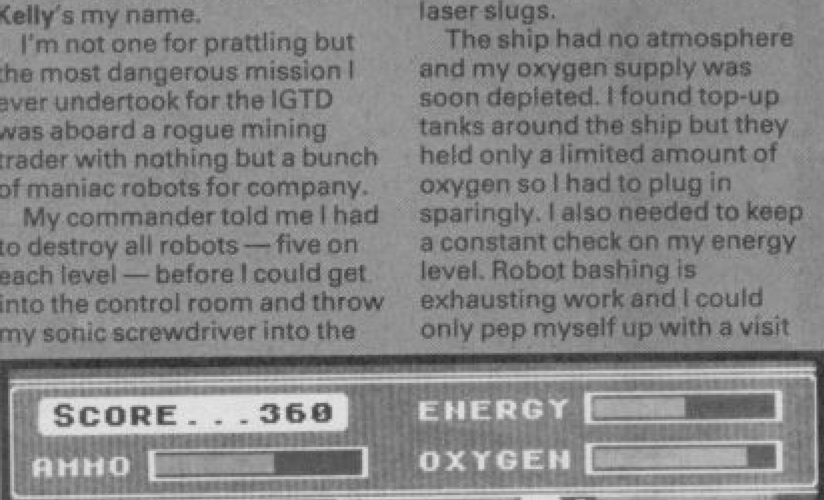


I may be a men old goat, but there's still a tale or two left in these old bones. **Captain Kelly**'s my name.

I'm not one for prattling but the most dangerous mission I ever undertook for the IGTD was aboard a rogue mining trader with nothing but a bunch of maniac robots for company.

My commander told me I had to destroy all robots — five on each level — before I could get into the control room and throw my sonic screwdriver into the works. I had only one life — I didn't want to lose that — a limited supply of oxygen and laser slugs.

The ship had no atmosphere and my oxygen supply was soon depleted. I found top-up tanks around the ship but they held only a limited amount of oxygen so I had to plug in sparingly. I also needed to keep a constant check on my energy level. Robot bashing is exhausting work and I could only pep myself up with a visit to the ship's infirmaries. Unfortunately, the ship's security system only allows a limited number of visits to the infirmaries, armouries and radio room. The radio room, however, provided a key. I could contact a laser satellite and command it to beam extra energy to the ship. It gave me a little more time, but not much.



FACTS BOX

A sorry tale of flat graphics, mechanical animation and dull plot. One of the poorest Quicksilva titles ever

CAPTAIN KELLY
Label: Quicksilva
Price: £8.95
Joystick: Kempston, Sinclair
Memory: 48K/128K

Reviewer: John Gilbert

★★☆☆☆

Three types of robot were in evidence, although they all acted the same. According to my design manual their strength and firepower were not fixed. A robot which proved harmless in one position was deadly in another. They fought until their energy dropped dagerously low and then retreated to a repair bay.

I got to each of the seven levels through one of the many teleport links throughout the ship. Once I'd killed off all 35 robots in the ship the doors of the control room opened and I quickly went into the complex.

I have to admit **Captain Kelly** was a tacky arcade game full of flat-looking robots, simple mazes and very basic special effects.

The robots weren't particularly well animated but they were persistent devils, firing at everything and blocking my way through the mazes.

My mission was tame and, after a few levels of blast, blast, blast, became tiring.

I had no choice but to continue to the end.

You do. Don't bother.

And from the company which brought you the terrific **Glider Rider** I'd hoped for something a whole lot better ■



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*Sparkle rating ******

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*Sparkle rating ******

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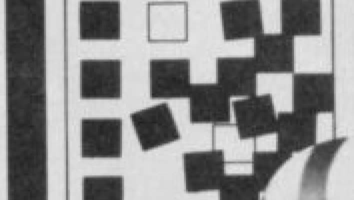
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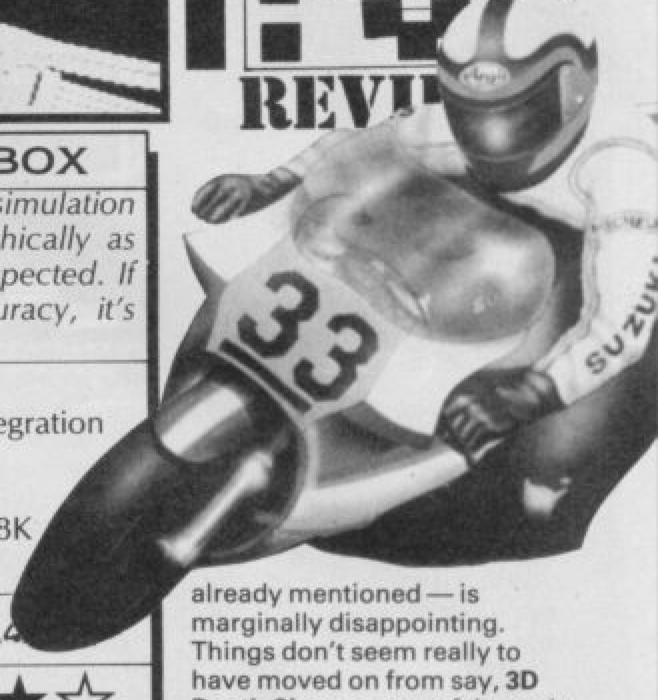
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TT RACER

STRATEGY SIMULATION

REVI





There's realistic and there is realistic.

When it says it's 'unbelievably realistic' on the front of the **TT Racer** motorcycle simulation box (attributed to Suzuki TT champion Paul Lewis) this may (unintentionally I'm sure) be misleading.

TT Racer is a very close simulation of TT racing — the bike you control in the game handles just like the real thing. In that sense it *is* very realistic. It is not, however, particularly astounding visually which may be some people's impression from the quote. In truth I was disappointed by the display.

The Suzuki bike is accurately represented in terms of acceleration, cornering and other handling characteristics. You can race it in a variety of settings and tracks against other bikes — authentic techniques to weave your way to the front and beat the opposition on the corners will work and thus the game can be seen as an genuine test of riding skill.

Despite the accuracy of the simulation (you can even alter the engine size and gear ratios — to experiment with different kinds of response) you can control the bike using only joystick movements — combinations of forward and backward with *Fire* giving gear changes up and down.

On-screen you get a display of the track, peripheral objects like trees and the other bikes (if you can see them) and at the bottom of the screen is your bike console. A nice touch is the authentic way the gear and brake levers 'squeeze' according to your joystick movements.

The display of the track — as already mentioned — is marginally disappointing. Things don't seem really to have moved on from say, **3D Death Chase** or any of the early car racing games. All the opposition bikes are the same colour (green) except for the usual attribute problems and except for when you 'see' the bike you have just passed in your mirror (when strangly it discovers colours it never knew it had — nice idea though).

Track scrolling is reasonably smooth but no better than other racing games of a year ago. Am I being too demanding to expect better?

Buy **TT Racer** because you want a simulation that's state of the art as far as attention to detail goes. If you're just after another racing game you might be disappointed ■



▲ Part of the highly detailed bike control panel ● Accelerator and break handler really move ● Gear change is automatic

FACTS BOX

Excellent as a simulation though not graphically as astounding as expected. If you're into accuracy, it's got it

TT RACER
Label: Digital Integration
Author: in house
Price: £19.95
Memory: 48K/128K
Joystick: various

Reviewer: G Tay...

★★★★☆



◄ On the tracks ● Another rider in the rear view mirror ● Tilting for the turn ● Watch that temperature reading

ROOM TEN

Utterly simple, fairly addictive, visually straightforward but strangely effective in a geometrical sort of way. **Room Ten**, more than anything else, is **Pong**.

Remember **Pong**, the game that started it all off? **Pong** that etched little bars into the TV set **Pong** that made your eyes go funny and got boring after about two weeks and was never taken out again?

No. Not like that at all. This is **Pong** in 3D in a reduced gavity box. This is sophisticated algorithm and subtle gameplay.

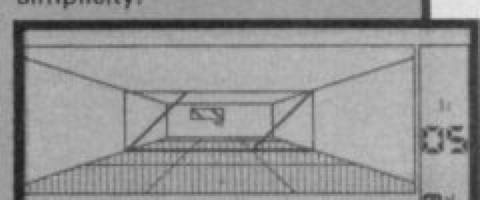
It involves bats and balls though. Maybe it's squash for yuppie astronauts.

Designed by Pete Cooke author, gasp, of **Tau Ceti** double-gasp, and written by Chris Newcombe, **Room Ten** is a neat twist on a great many ideas of bat and ball.

Imagine this: a box, oblong-shaped. At either end of the oblong are two rectangular bats. A ball is served, just like tennis and off it goes in reduced gravity. All movement starts and stops slowly — it is so easy to be hopeless stuck in the wrong position. You are trying, needless to say, to get the ball back without it hitting your back wall.

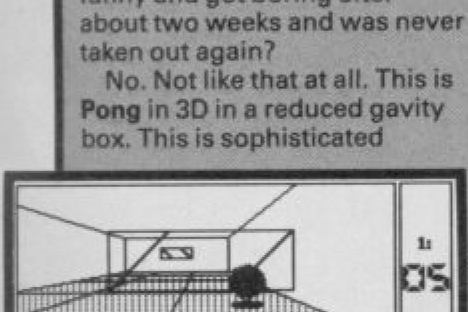
The ball will behave more or less like a normal ball in the sense that you can perform all the usual tricks of spin and angling by using the bat in different ways. It's just that you feel like you are moving in slow motion whilst the ball whizzes toward you as robustly as ever.

That's it. The whole thing is nicely dressed up with various menues, speed options, two-player modes (probably most fun) skill levels for the computer and instructions. But there's no disguising it's simplicity.



Graphically the thing looks like geometry diagrams, a rectangle for the bat within a rectangle for the playing box. Top of the screen is one player's viewpoint — bottom of the screen is the other's.

If it were a budget title it would be a classic ■



FACTS BOX

It's simple to play, and simple to look at. But turns out to be a deceptively entertaining and difficult game

ROOM TEN
Label: CRL
Author: Chris Newcombe
Price: £7.95
Memory: 48K/128K
Joystick: various

Reviewer: Graham Taylor

★★★★☆

DANDY

In **Dandy** the **Gauntlet**-style playing area — that threatening mixture of blind alleys and sudden wide open spaces as designed by a architect from ancient Greece — looks as impressive as ever.

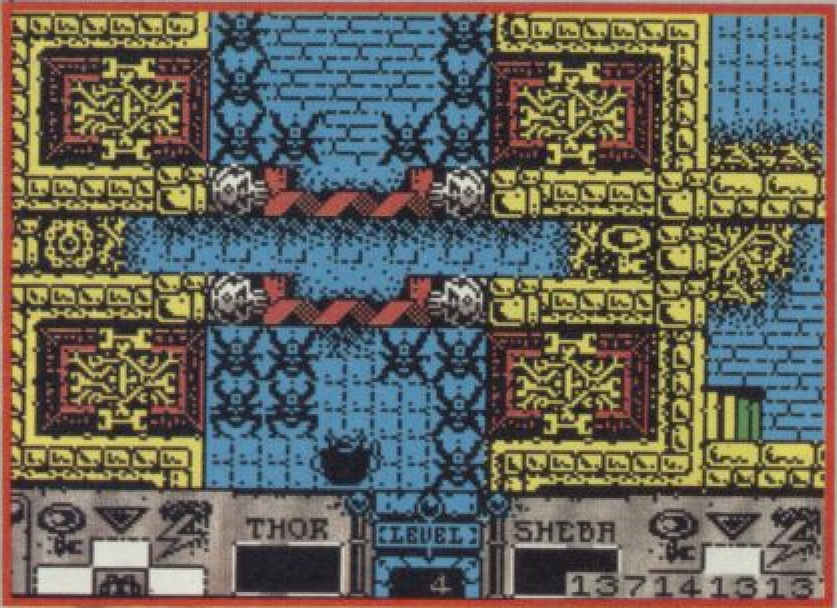
There is perhaps marginally less variety than with **Druid**. The main differences between the look of each level are only colour and the actual design of the maze.

The detail however is greater than for **Druid** — it's a trade-off of screen detail against screen variety.

The broad idea of the plot is easily summarised. Kill hundreds of monsters (a nasty kind of spider) though don't accidentally destroy goodies like keys, zap spells (smart bombs) and food. Through the game are large treasure chests which may reveal treasure.

Part of the game, at least first time round, is simply finding your way through to the next level. This is made that little bit more tricky by the fact that there are a series of underground passageways whose sometimes complex linkage takes a while to unravel — simple ordinarily but tough when giant spiders are queuing up to take you on.

Now **Dandy** is a pretty stupid name for a game don't you think? I mean you wouldn't expect a game called **Dandy** to be fast and frenzied would you?



▲ Monsters line up to do battle ● Chests are for opening ● The exit to the next level is on the right ● Things look pretty bleak for your hero

Many moons ago there was a game in the arcades called **Dandy**. It was sort of swords-and-sorcery played as if it were a manic zap-'em-up. You rushed round a mythical landscape armed with a selection of spells, which behave curiously like photon blasts, and killed mythological enemies by the cart-load. You had to select your spells to kill most effectively and pick up keys and bonus spell power by opening caskets. It wasn't that successful until it was renamed and turned into a multi-player game. It became **Gauntlet** — and the rest is history.

This then is **Dandy** not **Gauntlet**. On the other hand **Dandy** when played by a maximum of two players *is*,





▲ Level 2 ● Exit stairs bottom left ● Food bottom right ● Can our hero's name really be Sheba?

DRUID

Let me make one thing perfectly clear. This game is not Gauntlet. It has no connection with Gauntlet and just because the whole look of the game and gameplay is somewhat Gaunletesque I wouldn't want you to come away from this review with the impression. Hope that's clear.

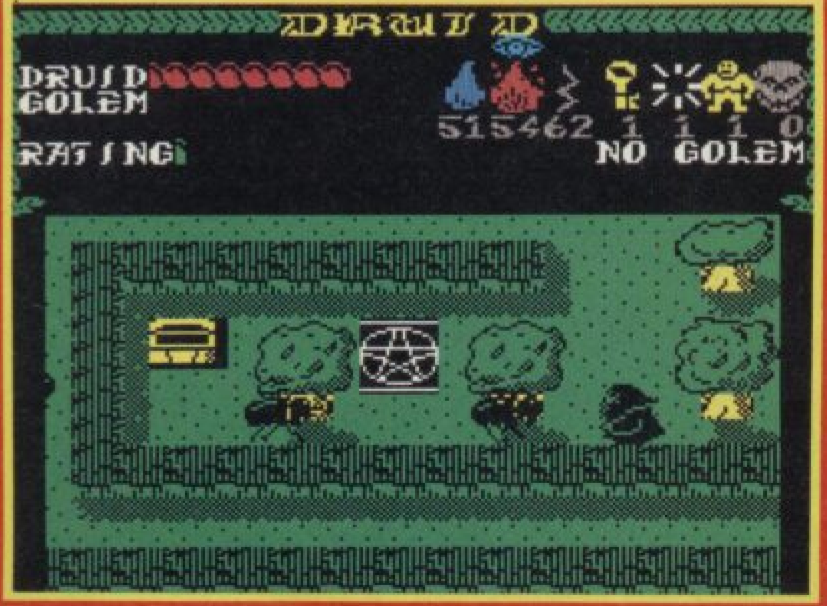
Druid is a swords and sorcery arcade game in which you rush about killing hundreds of assorted ghouls using one of three spells. You open magic chests to discover extra spellpower, cast various special spells and use keys to open doors. Travel from level to level via flights of stairs and the whole thing is presented top-down with a vast fantasy landscape scrolling behind you.

The curious thing about Druid is that the first screen is all shrubbery — trees and hedges: for a few moments you may be mistaken into believing it was not really all that much like the big G at all. However, as soon as you hit the second level — which looks like some sort of ancient greek temple and is full of mythical beasts and such — bells of familiarity start to be rung. This couldn't be deliberate could it? I mean they wouldn't try to hide in the shrubbery the fact this is a bit like G would they?

I completed the first level without too much trouble. You'll need to discover quickly the location of the first door key (needed at the beginning of the second level), the exit stairs and the position of a handy regeneration pad.

You'll also need to discover what spell works best on what creature and learn to switch between spells quickly and remember to keep them all topped up.

Druid looks good. The backgrounds aren't quite two-colour but have been carefully designed so that for attribute clash-purposes two



▲ Level one ● Not too much like Gauntlet? ● The pentagram restores energy

Now this looks more like it ● Another level on Druid ● Chest and exit right ▶



ARCADE REVIEW

TO THE DEATH

Probaby the hottest arcade licence of the past couple of years or so, **Gauntlet** is destined to be BIG.

So big in fact that games which (let's be generous) are heavily inspired by the game are being developed by dozens of companies.

The first two have (just about) thrown down the **Gauntlet** to US Gold's official version, which is still to appear.

We scrutinise **Druid** and **Dandy** and ask: Which will strike the first blow?

more or less, **Gauntlet**.

Let's just say that **Gauntlet** fans will find **Dandy** as good a conversion of **Gauntlet** as they could hope for. (The reason that Electric Dreams is putting out **Dandy** rather than licencing **Gauntlet** is more complicated and decidedly tacky in places. In the event the **Dandy** licence was much cheaper than **Gauntlet** and US Gold (which licenced **Gauntlet** for a lot of money) was not amused.

The curious — and deadly — way the monsters have of lining up to batter you is retained



faithfully in **Dandy**. Those who enjoy mass destruction should be well pleased. It is, however, more of a two-player game than **Druid** and if you have a duel port interface both can control their characters from joystick. This should substantially add to the game and help capture much of the excitement of the arcade original. At the time of writing the two players seemed to be Thor and Sheba, personally I wouldn't want to have a name like Sheba (unless I was an Alsation) and I hope that's changed before the game goes out.

There is really no major problems with recreating the general look of the original on the Spectrum. The background is fairly orderly — lots of straight lines — and the pathways generally stay the same colour all the time so almost no colour clash at all.

Design is elegant and movement is smooth — given the requirements of the two-player version, ie, that both players have to be in the same area of the screen there is no point in making the screen scroll — it just up-dates very quickly when you reach the edge of the current section.

In other words it looks great ■

SINCLAIR USER CLASSIC



FACTS BOX

Astonishingly authentic conversion of what is effectively 'that game'. As a two player game it's an astounding experience

DANDY
Label: Electric Dreams
Author: Ram-Jam
Price: £7.99
Memory: 48K/128K
Joystick: various

Reviewer: Graham Taylor

★★★★★

od for energy



FACTS BOX

Frenzied; spell bashing, otherworldy mythological violence on a grand scale. A bit reminiscent of Gauntlet in fact

Label: Firebird
Author: Dean Carter, Andrew Bailey
Price: £7.95
Memory: 48K/128K
Joystick: various

Reviewer: Graham Taylor

★★★★★

colours are mostly all that is involved. Consequently, although the sprites are at times a little indistinct there are no real vomit-inducing colour flicker moments.

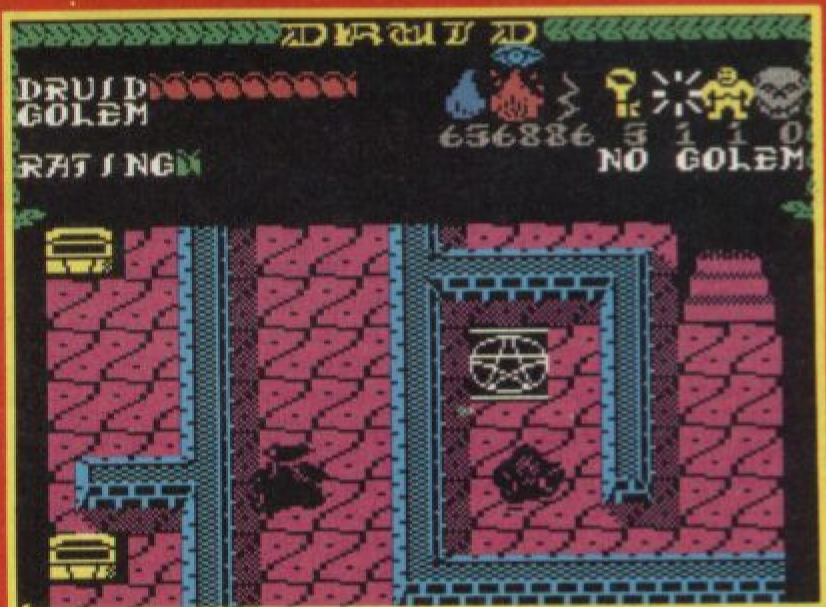
I made it to level three within an hour or so and soon realised that there is far more to the game than mere blasting (sorry, spell casting). The keys are vital. Sometimes a chest which appears to contain some wonderful goodies, like gigantic charges for spells, in fact contains something far more vital, ie your way into the next level.

There are smart bombs (called Chaos spells), a special invisibility spell that causes the assembled warlocks, fiends, trolls, spooks (and less easily described denisons of the dark) to stand still for a few moments whilst you make a getaway.

More unusual is the Golem spell which conjures up a golem — an unearthly being that looks sort of like a bouncer from the Hippodrome and performs a similar sort of function — it keeps the insalubrious elements (and elementals) away by stomping into them.

Druids is devilishly addictive. I had to be dragged screaming to my typewriter to actually get around to writing about the damn thing. It captures a good deal of the spirit and playing feel of That Other Game and it will sell in huge quantities unless the legal boys start to get nasty ■

Your rating starts to grow ● Re-energisied you can exit down the stairs to the next level ● Currently set to the fire spell ● Will it be effective on the next screen ▶



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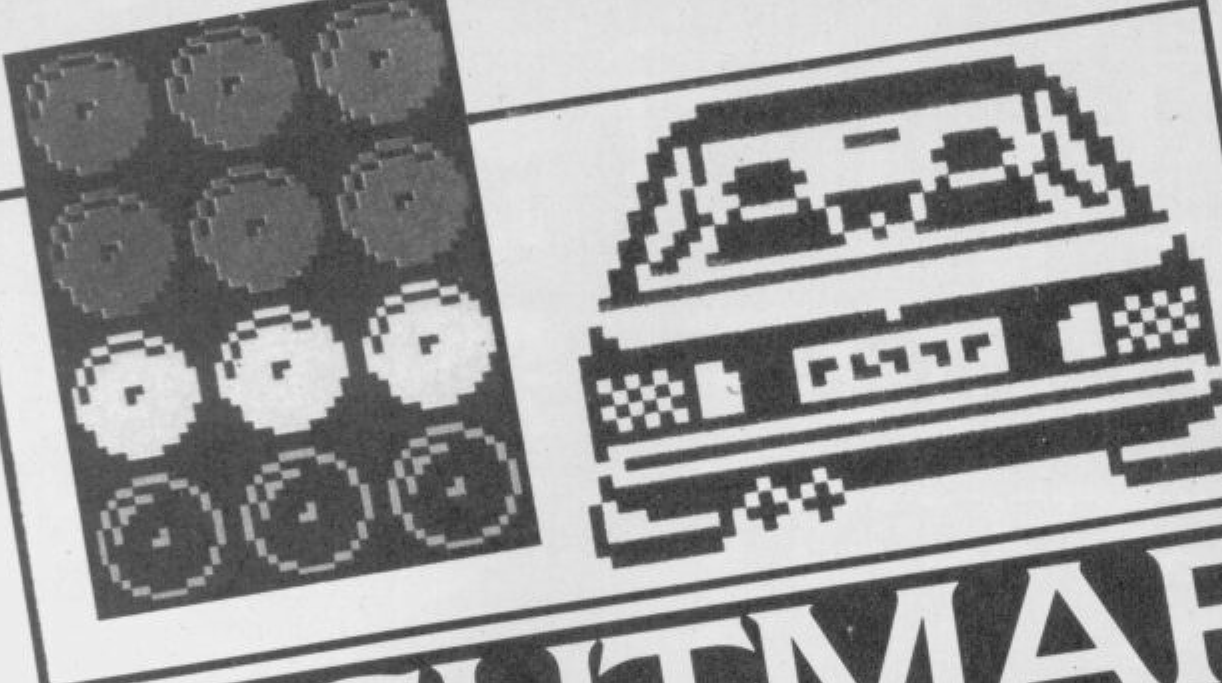
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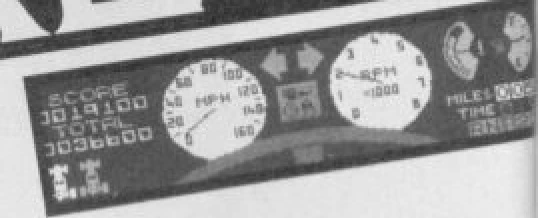
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ARCADE ★ REVIEW

NIGHTMARE RALLY



Two red lights.
Yellow, green . . .
Thrust down the firebutton and plunge the handle forward. And your car lunges forward at a speed more in keeping with a Formula One machine than a rally-prepared Escort embarking on a gritty sideways-drifting ride through one of the most nightmarish landscapes Ocean has yet created.

Don't hit the trees. They cause the most damage and you've got to reverse before going forward again. Mounds are bad too — they send you spinning wheel-over-roof.

It's a wild obstacle course weaving between the red and blue flags.

Your Demon-1 trubo has five gears which can be controlled in either manual or automatic. Manual gives better handling but you have to press the joystick button every time you decide you want to change gear.

The turbo's dashboard includes a speedometer, tachometer, engine temperture and fuel level dials. A timer, next to the speed indicator, tells you how much time you have left on the current stage and two arrows between the speedo and tacho show which direction you should take to run round the courses' blue and red flags.

A full screen display shows the length of the stage in miles, your maximum brake-effectiveness speed, and your skid hazard speed.

Keep to the right of the blue pennants and left of the red ones and you notch up bonuses. Stray outside their fluttering boundaries — even for a few seconds — and you'll lose your car and have to start the stage again. That's blatently unfair! In a real rally you might have time to get back on course.

On the second stage, for instance, you have to race through a tunnel of flags which bend out of perspective so you can't tell which flag is in front of another. It's probably not a problem the programmers deliberately introduced into the game but it hampers most attempts to get through that second stage. Rivers slow you down even more and if you hit a river at anything over 20mph you'll have to start again. Makes good sense, I s'pose, but even my red Ford Fiesta Popular Plus can take a shallow river at 40mph — the only danger is if it's too deep and the water comes in over the windows.

Fogbanks pose navigational problems which make the colour clashing flags look like a luxury. The banks in Nightmare Rally black out the road in front and you have to rely on the direction indicators on the dashboard to get you out of trouble. The arrow indicators point left and right. When one of them lights up red you turn the wheel in that direction.

After Stage Two you'll start running into water-logged fields, roads and tracks where your turbo skids if it's in anything but first or second gears. Ocean obviously hasn't consulted the Highway code. You deal with skids by gently applying the brakes and straightening the wheel. Sound's like a recipe for instant oblivion if tried in real life. Still, who said simulations were supposed to be accurate.

Or plausible. Try this — to score bonuses you drive over traffic cones, fly over trees or obelisks, and jump or sommersault over a hill. The hill flip is the easiest stunt to perform but you'd better do it while you can as there aren't many mountains in this game.

Pi gates — like formula one finish gates — recharge your fuel but nothing's that simple in **Nightmare Rally**. Some of the gates will turbocharge your car while others will supercharge it. Your Demon-1 is a gas guzzler so the effect doesn't last long but it gives enough boost to jump over rivers and to get beyond the normal 120mph speed limit.

It's a tough game to complete and there's no way you can store intermediate stages and continue them later. You have to finish every stage and that'll take you hours. It's also impossible to play with anything other than a joystick. Stick control is best for swift changes in direction and you won't need to look from the road to the controls — a fatal mistake when driving any car.

Nightmare Rally is part arcade, part simulation.

Great fun for rally fans who won't be put off by the fantasy elements. Anyone who tries braking into a skid in a real Escort won't need to buy any more games after this one!

End-over-ending a *real* car isn't a cool thing to do! ■

FACTS BOX

Four-wheel fun with an accent on fantasy. Easy to score but difficult to progress past Stage 2

☆	NIGHTMARE RALLY
★	Label: Ocean
	Authors: Ian Morrison and Alan Laird
★	Price: £8.95
★	Memory: 48K/128K
	Joystick; various
★	Reviewer: John Gilbert

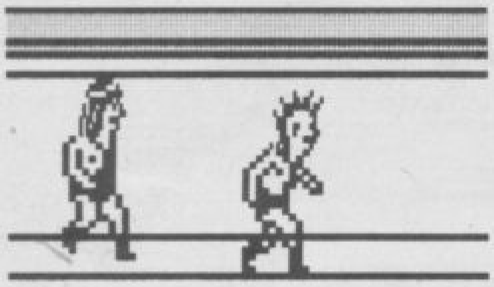




WINNERS WINNERS WINNERS

ROCK 'N' WRESTLE

The lucky winners of the **Rock 'n' Wrestle** competition held in July know their drinks. We asked you to tell us which term was not a wrestling hold or move: a)Aeroplane Spin; b) Simplex; c) Piledriver; d) Singapore Sling; e) Half Nelson. And the answer is, of course, Singapore Sling — it's a cocktail! Congratulations to the winners who have each won a copy of Melbourne House's **Rock 'n' Wrestle**.



Phillip Middleton, Gwent; Paul Smith, Norfolk; P Brookes-Johnson, Tonbridge; John Kemp, Lincoln; Michael Bray, Perth; B Elias, Cardiff; Matthew Smyth, Surrey; David Butten, Hampshire; R Fawley, Sheffield; Ian Lander, Leicestershire; Matthew Clayton, South Leverton; P Newnham, Weston-Super-Mare; Trevor Pudney, Chelmsford; Jonathan Gregg, Hull; Steven Barclay, Glasgow; Richard Ellis, Manchester; Chris Peters, Birmingham; J Doughty, Co Durham; Brian Thorpe, Gosport; Neil Young, Essex; Colin Matthews, Holgate; Pim Gaasbeek, Holland; Martin Gourie, Banff; J Moore, Wimbledon SW19; Kieran Brennan, Eire; C Reece, London SW9; D Overy, Winchester; Patrick Dodde, Holland; M Elliott, London SW17; Peter Ballestracci, Essex; Andrew Bird, Sheffield; Christopher Lowe, Blackpool; Carol Smith, Dartford; Allan Gibbs, Ipswich; Andy Lord, Wirral; Jason Short, Gwynedd, B Gregorick, Sutton-on-Trent; Shaun Bowes, Hull; Richard Loader, Swindon; Stuart Ross, Troon; C Docherty, Houghton-Le-Spring, Tyne and Wear; L Hawker, Newcastle-upon-Tyne; Helen Williamson, Elgin, Scotland; Matthew Wilford, Melton Mowbray; Brian Steenson, Northern Ireland; Stephen Robson, Bromholm; C Walter, Somerset; M McPherson, Lanarkshire; R Walker, Corwen; Adrian Smith, Burton-on-Trent; Andrew Webb, Northampton; A Driffield, Mold; Ross McInnes, East Lothian, Scotland; Michael Isidorou, London SE9; Jon Hansford, Doncaster; M Kemp, Biggin Hill, Kent; A Rathbone, Leamington Spa; Christopher Wilks, County Durham; Jonathan Leach, Sidmouth; Robert Browne, London SW17; K Mullowney, Leeds; G Robson, North Yorkshire; T Astbury, Wirral; Alan Churcher, Newport, Gwent; Scott Phillips, Tamworth; Andrew Bridge, Chelmsford; Colin Anderson, Hull; Hugh Kennedy, Belfast; David Annard, Aberdeenshire; T Crampin, Barrow-on-Humberside; Sean Batt, Bristol, Hatas Etgar, Singapore; Alex McDowall, Darvel, Scotland; Martin Gabe, Loughborough; Dave May, London W4; P Butler, Wirral; Wayne James, Bromley; Simon Atherton, Birmingham; Kevin Meary, Belfast; John Grant, London SW16; Harry Maton, Croydon; Matthew Eva, Wickford, Essex; John Clifton, London SE3; Wai Ming, Derby; D Latham, Kingsley; G Gittins, Hinkley; M Mitchell, Macduff, Scotland; S Goodchild, Oxford; Simon Gillham, Derby; Jonathan Allcock, Warrington; Mike Donovan, Andover; Daniel Perkin, Woodley, Berks; P Chessman; Waterlooville, Hants; Gary Milbourne; Ipswich; Con Elms, Rochester; P Helliwell, Wokingham; Steven Darbyshire, Stockton-on-Tees; Matthew Maybury, Buckley, Clwyd; Mark Payne, Coventry; Thomas Whittingham, Dorking.

JEWELS OF DARKNESS

Here are the winners of the Rainbird/H Samuel comp printed in August.

The one gem in the list that's semi-precious, rather than precious is Opal — which seemed to fool a good number of you.

Ben Brewis of Banbury, Oxon, wins the first prize, an H Samuel gift voucher, worth £100 — redeemable at any H Samuel branch — in on its way to you.

Four runners up each receive £25 H Samuel vouchers. They are:

Tim Crampin, Goxhill, Barrow-on-Humber, South Humberside, Yorks; Matthew Newman, Waltham Abbey, Essex; David Scott, Gosforth, Newcastle-upon-Tyne; and Peter Hodgkinson, Chillcompton, Somerset ■

DARK SCEPTRE

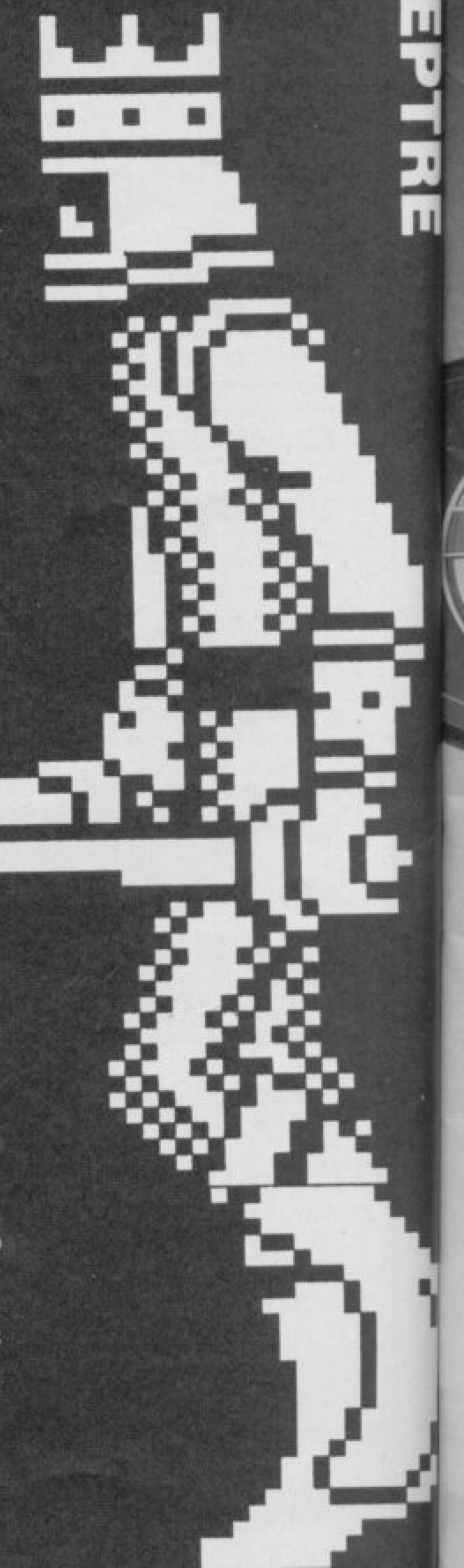
We had a huge number of entries for out Beyond/**Dark Sceptre** competition, in the August issue.

The correct answer was Tolkien. Solution: Price of travelling with one removed: Tol; unit of memory: k; sounds like one in German form: ien.

The winner is Jeremy Cain of Sale, Cheshire, who wins the incredible **Dark Sceptre** oil painting plus an entry in Mike Singleton's play-by-modem version of the game, which kicks off pretty soon now.

Four runners up also get play-by-modem **Dark Sceptre** entries: Peter McNulty of Hornsey, Ondon; Gary Sneddon of Forfar, Angus, Scotland; Alexander Kerr of Downton, Wilts; and S Butler of Heathfield, East Sussex.

The fifty runners up, who each receive Beyond T-shirts are: Phillip Demoore, Bury St Edmonds, Suffolk; W Markham, Eroicagasse 41/2, Austria; G Brewer, Hemel Hempstead, Hertsd; David Finch, Barmouth, Gwynedd; Alan Bennett, Thatcham, Berks; Stuart Broughton, Blaby, Leicester; Marie STorrar, Livingston, West Lothian, Scotland; Lorien Kite, Haughton, Stafford; Gavin Mair, Notting Hill, London W2; Duncan Barker, Sawston, Cambridge; J P Gibson, Saffron Walden, Essex; Chris Pottle, Sevenoaks, Kent; Martyn Hill, Bridgwater, Somerset; Matthew Stephenson, West Denton, Newcastle upon Tyne; Uchenna Ogbuji, Luton, Beds; Dean Armer, Kettering, Northants; Cameron Allan, Stanmore, Middx; Alan Kitchen, Headington, Oxford; Shaun Colrein, Hull, North Humberside; Anthony Donnelly, Enniscorthy, Co Wexford, Eire; D G Chandler, Huddersfield, West Yorks; Damien Austin Belfast; J M Yard, Balsall Common; Coventry; Nigel Parsons, Cardiff; Justin Bavley, Scarborough, North Yorks; S Owen, Blackpool, Lancs; Simon Maclean, Dalkeith, Midlothian, Scotland; Paul Taylor, Cadismead, Manchester; H D Lethem, Whitley Bay, Tyne and Wear; Tim Moore, Leeds; Daren Newbold, Birstall, Leicester; Andrew L Fraser, Cathcart, Glasgoe; Jonathan Alcook, Warrington, Cheshire; Andrew Laycock, Chelmsford, Essex; N Parkinson, Fleet, Hants; John Clifton, Blackheath, London SE3; M Harkin, Harrow, Middx; Geraint Bundy, Ogmore-By-Sea, Mid-Glamorgan; C Paulton, Prescot, Merseyside; K Gauld, Clarkstow; Paul Draper, Ipswich, Suffolk; M Harken, Harrow, Middx; Terry Sinspon, Bury St Edmunds, Suffolk; Nigel Benson, Bramhall, Stockport; T Crampin, Goxhill, South Humberside; P Hun, Biggleswade, Beds; Mark Docherty, Burscough, Lancs; Steven Taylor, Castletown, Caithness; Mark Easterbook, Torquay, Devon; Steve Shilvock, Moston, Manchester ■



MACH I



Metal shafted, microswitches, four fire buttons and autofire. Has everything, even a 128K+2 option

KILL FACTOR
Very fast response from the microswitch controls. All four fire button respond well although the two base buttons seem to work on a different basis from those on the hand grip

DEFENSIVE SYSTEMS
Feels very tough. There's a definite click to the microswitches. Should last well. One odd thing on our model, playing with Lightforce, the autofire slider switch actually seemed to stop the fire button working

LOOKS CAN KILL
Nice grip, the top/side fire button combination is a good one since when your first finger starts acheing after using the front button you can switch to the top one which requires thumb manipulation. It keeps you going longer. The slider autofire is hardly chic and neither are the two base fire buttons — large triangular slabs. Reasonable on balance you won't look too silly wielding this one

OVERALL COOL
Functionally great, reasonably good looking, moderately cheap. A winner

PRICE £14.95

One joystick's the same as another isn't it? No. Why? Because Graham Taylor says that's the way it is!

Well you just yank it don' you, I mean sometimes you stab it wiv your fumb as well but das about it reely. Is there such a thing as a cool joystick? What particular piece of plastic will most perfectly set off your Georgio Armani lime green california casuals. If Crockett and Tubbs bust aliens instead of cars what would be the piece of plastic for them?

When it comes to joysticks there are as many opinions as there are frazzled aliens. Ain't nobody gonna be damn fool enough to pretend that it's posible to do some sort of definitive/objective analysis. So what we have here is a mixture of fact and faction. Actually reading between the lines will probably reveal some deep-seated and dodgy details about the reviewer ■



ELITE ZIP-STICK

Oddly shaped with one base fire button and a slim shaft. Microswitches

KILL FACTOR
Very fast, the slim control shaft gives you lightening reactions. Make the Lightforce ship turn on a sixpence by clicking it around. Fire button is equally responsive. The aliens don't stand a chance



DEFENSIVE SYSTEMS
Thin shafts always feel unreliable, as though one medium yank will destroy them forever. Well, I mediumly and even heavily yanked it and the thing refused to budge so I guess the rating has to be good

LOOKS CAN KILL
I don't know. It's shaped like a pear and looks a bit like a Romulen battle cruiser. Is that good? Base-mounted fire buttons are tiring

OVERALL COOL
High marks, performs well, seems tough and looks interesting. Don't like the fire button though

PRICE: £15.95

PRO ACE

Leaf switches and a single fire button. Fairly conventional design otherwise

KILL FACTOR
Sluggish. Time to eat several cheese sandwiches and drink numerous cups to tea whilst waiting for your ship to move from one side of the screen to the other. The fault I think of its ultra-rigid construction. Fire button moves very little and lacks 'bounce',

DEFENSIVE SYSTEMS
Ordinarily leaf switches mean bad news in terms of reliability but the Pro Ace is so rigidly constructed that it ought to last for ages

LOOKS CAN KILL
Very average. Big rectangular fire buttons definitely don't look cool and I always find joysticks with the 'ball on the end of a stick design' a bit silly-looking. Base-mounted fire button and therefore tiring

OVERALL COOL
A reliable leaf switch but not much fun to use and the little white directional arrows around the shaft base are as passe as fuzzy dice and nodding head dogs

Price: £11.95



SPEED KING

Strange shaped joystick with side fire button and thin stick shaft



KILL FACTOR
Very responsive due to microswitches and the nice flexible shaft which you can swivel around at the speed of light if you want. Fire button is a little odd but it works well enough

DEFENSIVE SYSTEMS
Well, it looks a bit like a tank, apart from the actual shaft which, though thin, is plastic over metal. Rough treatment caused no problems

LOOKS CAN KILL
It sort of reminds me of Thunderbird Two. It's designed to fit snugly into the palm of the hand and this it does. The odd side-mounted fire button is usefully positioned but a little hard going, inducing serious ache after a few minutes

OVERALL COOL
Neat, a bit bulky looking but well made and responsive. Should last

PRICE: £12.95

THE KILL FACTOR



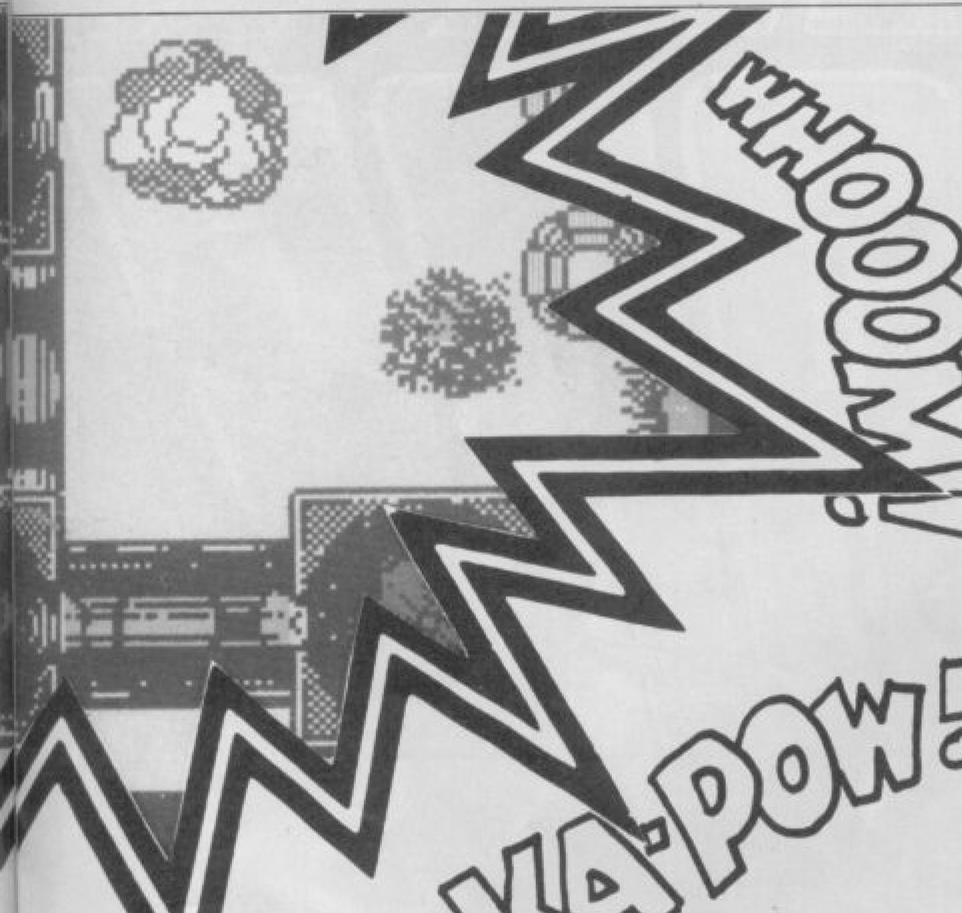
THE RATING SYSTEM

KILL FACTOR: **a general purpose term implying how responsive the joystick is to your slightest movement. Responsive equals alien deaths**

DEFENSIVE SYSTEMS: **Can the thing take the strain? Is it going to fall apart in five minutes if the going gets rough?**

LOOKS CAN KILL: **Is it stylish? Is it easy to grip? If it were a car would it be Ferrari Daytona or a dumper truck? This section is almost totally biased**

OVERALL COOL: **The lot totalled up, fiddled with, adjusted and generally mutated to give a difinitive overall impression of the total joystick concept**



WIZ CARD

Hey where's the big sticky up thing? This one looks like credit card. Two small fire buttons, no autofire. What *is* this thing?



KILL FACTOR
Pretty good, multi-directional control via a sort of swival turntable on one end. It is quite easy to slide your thumb over the turntable and change direction quickly. Fire button timings equally good and responsive

DEFENSIVE SYSTEMS
Should last, there isn't much physical movement involved so no mater how hard you hammer away at it it ought to keep going through thick 'n' thin

LOOKS CAN KILL
I quite like the credit-card look. It has the kind of elegance Bang and Olufson give their hi-fi gear. Smooth and sophisticated. However, there are problems. It may look OK but actually your thumb gets pretty tired pretty quickly, the fire buttons are nowhere near big enough and I can never decide which way around to hold it so that it makes the best sense

OVERALL COOL
Not bad. Very cheap. Looks pretty good and responds well but tiring to use

PRICE: £8.95

AUTOFIRE PROFESSIONAL

Conventional design apart from square fire buttons. Microswitches and autofire

KILL FACTOR
Uses microswitches (basically an on/off mechanism rather than metal leaves, the former is generally best) and responds very quickly. The same is true of the two fire buttons which click audibly but work well. Using the autofire gives you a fast stream of bullets although for some reason there are occasional hiccups when it stops for a couple of seconds



DEFENSIVE SYSTEMS
Described as 'professional' the stick is built to last. The loud click on the switch mechanisms reassures — this one should last a good long while even if you play Lightforce all day long

LOOKS CAN KILL
Ugh! Black is OK, but yellow for the fire buttons. Why yellow? Overall appearance is fairly conventional and so won't as such lose you much credability. One big problem — those fire buttons. Here's a simple rule, base-mounted fire buttons are always a mistake and are always very tiring. That's true here

OVERALL COOL
Reliable, responsive but not easy to use and those fire buttons lose it serious points

PRICE: £19.95

GUN SHOT 2

Two fire buttons, standard joystick with sucker feet and a fire button option. Lever style



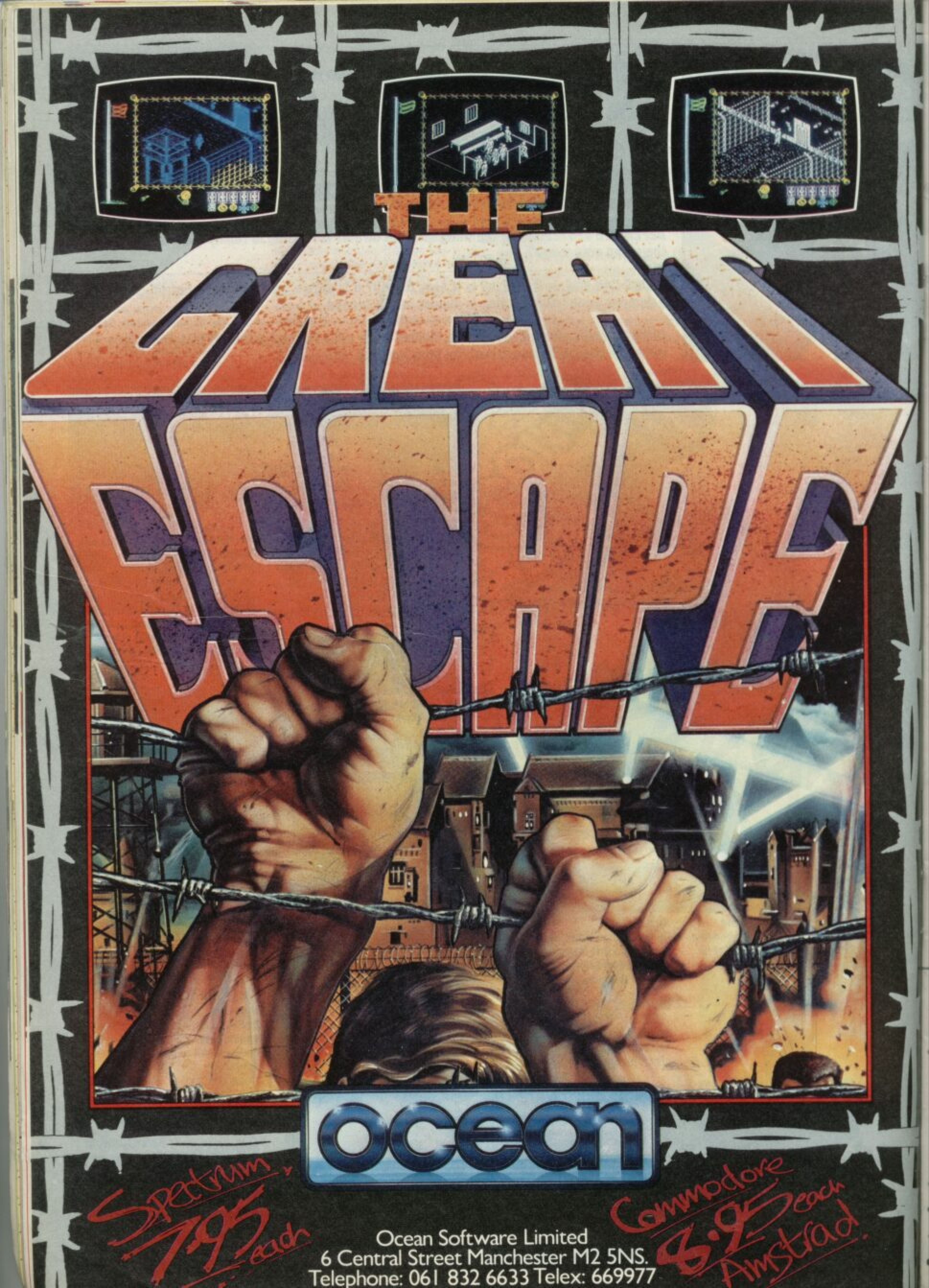
KILL FACTOR
Good response times suprisingly and an autofire that lets out a never-ending stream of bullets (photon torpedoes or whatever)

DEFENSIVE SHIELDS
Yeah well, its leaf-switched innit, which is not too great. On the other hand it's rigidly constructed, so I'd give it medium durability points

LOOKS CAN KILL
Black and red, dull and boring. Smooth handgrip makes your hand slip, no bonus points here

OVERALL COOL
Responsive, quite strong. Boring to look at and the grip is naff

PRICE: £8.95


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MY COMPUTER IS: ☐48K ☐SPEC.+ ☐128K (tick box)

SU

NAME _______

ADDRESS _______

TELEPHONE _______

Opus.

125+

Budget offering. Leaf switches but lots of features like autofire. Also a 128K+2 option

KILL FACTOR
Fairly responsive with suprisingly good fire buttons for a non microswitch offering but definitely lacks the edge some of the more expensive offerings

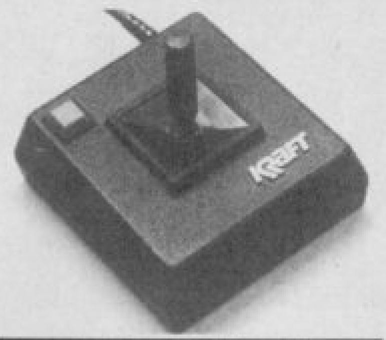
DEFENSIVE SYSTEMS
Cheap. Not likely to last years and years but reasonably strong given the budget price tag. For 128K+2 owners it's definitely better than the official Amstrad offering

LOOKS CAN KILL
Nice grip and standard red/black colour combination. It's been selling very well so I guess it passes some sort of popularity test. Conventional but OK

OVERALL COOL
One of the best budget sticks. Good response but what you save on money is paid for by durability

PRICE: £8.95





KRAFT

Small and square. Microswitches, one fire button and unusual 4/8-way converter

KILL FACTOR
Very good, the short shaft responds quickly and the microswitches click effectively. The special switches on the base of the stick which allow a choice of 4/8-way movement may be useful in some games

DEFENSIVE SHIELDS
It's been around a while now and seems to last well. The short joystick means there isn't much strain when you perform those 180° turns. . .

LOOKS CAN KILL
It'll never be cool. Not unless the cubist look comes back into fashion — a square box with a thin stick in it, what else can I say? Stick ergonomics quite good but as ever — it's a personal preference — base mounted fire buttons are tiring and I found the square base difficult to hold

OVERALL COOL
Functional only. Sturdy and very cheap for a microswitch stick

PRICE: £9.95

MASTER

Chunky microswitched offering with two fire buttons and auto-fire

KILL FACTOR
Microswitches mean the response time is good but the shaft is, well, limp. It sort of, er, flops from one side to the other. It seriously effected my scores on Lightforce

DEFENSIVE SHIELDS
Sturdy enough. Big chunky base and large angular top. Intense yanking could not dislodge it. Should last a good long while

LOOKS CAN KILL
Em, well. How to describe it? It's sort of a cross between the *Star Trek* space cruiser (the little thing that usually crashes) and the gear stick off a very old Lotus. I found the base-mounted fire button a strain and the shaft difficult to hold comfortably

OVERALL COOL
Big and chunky. Unusual — you may like it. I didn't

PRICE: £11.95





QUICKSHOT 1

Archetypal joystick, that seems to turn up under a lot of different names. Two small fire buttons

KILL FACTOR
Resonse only reasonable. Don't know why, since the thing has microswitches but I just don't think this one quite cracks it with the response times. Fire button seems a bit slow and stodgy too

DEFENSIVE SYSTEMS
Looks a bit thin and flimsy but actually seems quite tough when given the 'they didn't actually say they wanted this back' test, in which the thing is yanked backward and forward a lot

LOOKS CAN KILL
Naff and nasty. I think the grooved base gives the stick the vague impression of 30's art deco at its worst. Hand grip is, however, particularly good — firm and nicely contoured

OVERALL COOL
Not too hot on responses and not very elegant. Strong though

PRICE: £6.95

Mach 1	95%
Elite	89%
Pro Ace	68%
Speed King	91%
Gun Shot	65%
Wiz Card	79%
Autofire Professional	78%
125+	82%
Kraft	85%
Master	65%
Quickshot 1	67%

C•O•D•E T•A•L•K

Dan Dare is one of the most successful games Virgin has ever released. In this — the first of a regular interview slot — we ask the authors of the program, Dave Chapman (programming) and Martin Wheeler (graphics) a lot of deep and searching questions



DAVE CHAPMAN: Age 22

"The first computer I saw was a Commodore Pet at school. Learning to program was largely a matter of guesswork — just picking up ideas from all over the place. I first began looking at machine code when I had a **Space Invaders** game on the Pet and found I couldn't list it.

Probably the first program I ever wrote was a **Payroll** program at school, or something like that but really the first thing I am actually proud of is **Sorcery Plus**."

VITAL DETAILS

Favourite program
Dropzone
Favourite arcade game
I don't play them! Probably Gauntlet
Program you would most like to have written
Manic Miner — it changed the world!
Greatest programming achievement
Dan Dare — particularly the explosion at the end
Favourite TV program
Hill Street Blues
Favourite movie
Alien
Favourite record
Quite Riot 3
Favourite book
I don't read much but I quite liked Firefox Down
Most hated program
Knight Rider (on the Commodore)
Hobbies
No time for anything else
Worst subject at school
German
Favourite thing about the Spectrum
The reset switch
Worst thing about the Spectrum
Attribute clash
SOFTGRAPHY: SAM SPADE, SORCERY (1984), SORCERY PLUS (1985), DAN DARE (1986)



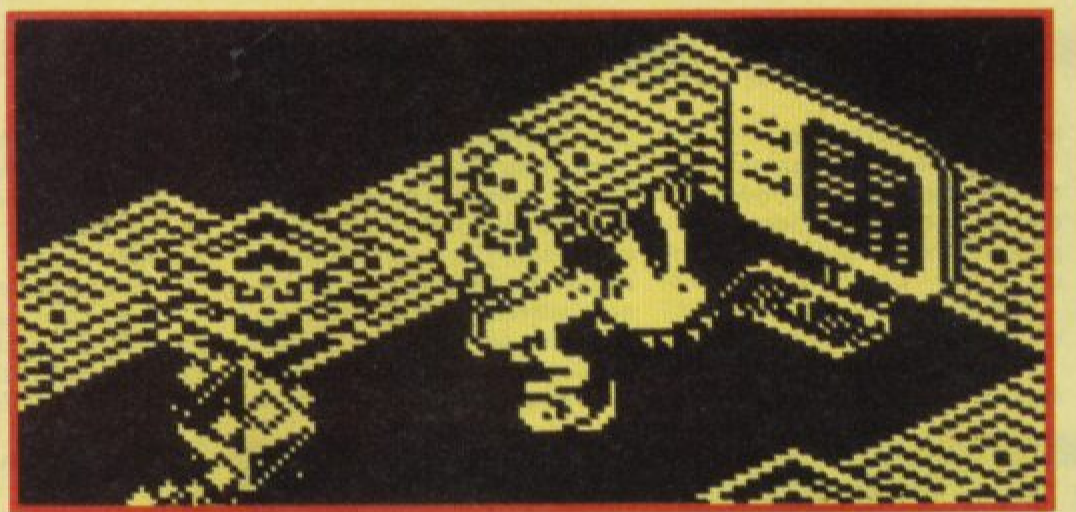
MARTIN WHEELER: Age 17

"I don't remember the first time I saw a computer but it was probably a ZX81 which I got when I was about 13 or 14. I never did really learn to program beyond moving a few things around the screen. The first program I ever wrote was called **Nutron Wars** and it was all about defending skyscrapers from attacking aliens. It was awful."

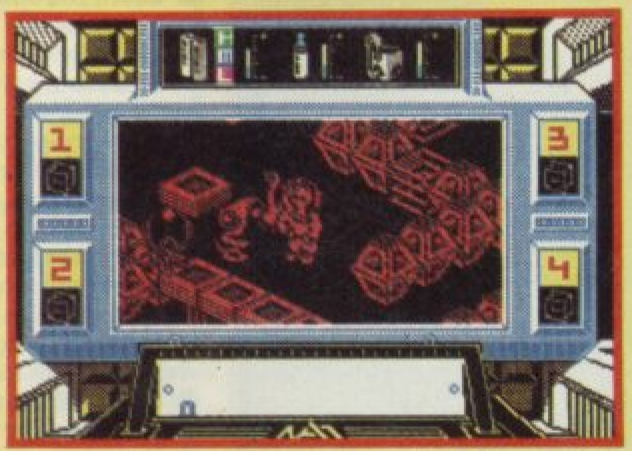
VITAL DETAILS

Favourite program
It used to be Knight Lore but I'm not sure now
Favourite arcade game
Gauntlet
Program you would most like to have written
Dan Dare
Greatest programming achievement
Avoiding attribute clash almost totally on Dan Dare
Favourite TV program
I hate 99% of everything I see on TV
Favourite movie
Blade Runner
Favourite Record
Psychocandy by the Jesus and Mary Chain, and 1,000 Hours by Hula
Favourite book
I haven't read a lot recently but I like Lord of the Rings
Most hated program
Knight Rider
Hobbies
I have a CZ101 synthesizer and drum machine — I think its a brilliant synth
Worst subject at school
Pottery, needlework and woodwork — I once carved a fish though, it was terrible
SOFTGRAPHY: THE CHRISTMAS CARD, DR FRANKIE AND THE MONSTER (1984), DAN DARE (1986).

PRODIGY



◀ The computer ● Feed it the keys to escape from this nightmare world ● Everything else on this screen is deadly



▲ You, an emaciated alien meet the mutant zebedee ● Watch out for the roving monitor on the right

FACTS BOX

Abstract, surreal, utterly odd 3D maze/arcade/adventure game. Very inventive and very irritating but still brilliant

★	PRODIGY Label:
★	Electric Dreams Author:
★	Mev Dink Price: £7.99
★	Memory: 48K/128K Joystick: various
★	Reviewer: Graham Taylor

Electric Dreams has released some moderately bizarre titles in its time. Bizarre good and bizarre bad.

Nothing however, has prepared the world for **Prodigy**. **Prodigy** takes bizarre to a whole new plateau. There is virtually no element of the game that is not out-to-lunch, AWOL or otherwise not playing with a full deck.

To begin with what few previous reference points are available. It looks a little like **Molecule Man** meets **Sweevo's world. Knight Lore** top-down edge-on 3D, but scrolling landscapes chock-full of odd geometrical shapes and populated with utterly odd aliens and unexpected banal items — like a shower in the middle of an abstract landscape. Got a mental image? Well it's not like that, there's more . . .

There's this baby. You're an alien. The baby crawls, it needs feeding, it must be washed. You need to find milk. Finding milk is not a grandiose objective to have as the basis of a computer game so you also have to find some power keys.

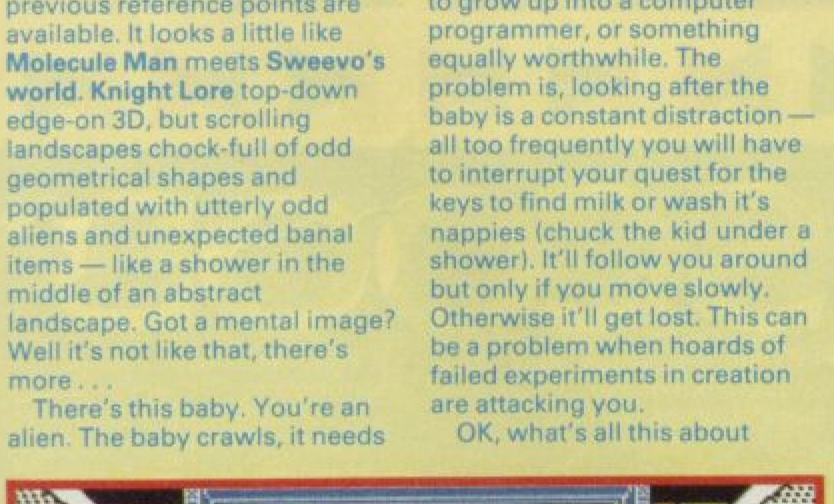
Find a computer, dump the keys in it and escape this nightmarish world. Thus allowing the baby the freedom to grow up into a computer programmer, or something equally worthwhile. The problem is, looking after the baby is a constant distraction — all too frequently you will have to interrupt your quest for the keys to find milk or wash it's nappies (chuck the kid under a shower). It'll follow you around but only if you move slowly. Otherwise it'll get lost. This can be a problem when hoards of failed experiments in creation are attacking you.

OK, what's all this about experiments then? Well the baby was a result of wierd experiments in creation (I've never heard it called that before) but there were some less successful attempts. These include things that look like vacuum cleaners, things that look like paintbrushes and things that look like beach-balls. Whatever — they are all nasty, the only difference is some are stupid, nasty and others are vicious and nasty.

Confused? There's more. There are four general areas. One is entirely made of ice — guess what, you slide around a lot — another area is mostly fire — you get burnt. The vegie zone seems a innocent garden tended by a mutant gardener and the final area, the tech zone, contains curious machinery.

There are a million ways to die, hundred ways to get hopelessly lost, dozens of mazes in various guises (sometimes changing whilst you are in them) and almost no chance whatsoever you'll ever solve the thing. One piece of advice — make a map.

What else? well there is a teletype machine that sends you messages on what you should do.



◀ Alien with the baby following close behind ● The cheerful little brat doesn't know its rough out there . . .

Nothing is ever simple. There are transporters but they don't act in a very predictable way — you could end up almost anywhere.

There are so many odd things to discover in this game. If, for example you fall into one of the pits of fire that crop up occasionally you immediately zoom into the nearest shower to cool off. No option.

Is a game featuring baby nurture as a prime element going to crack it on the street? The temptation to blast the little brat is strong but, anyway, your blaster can do no more than stun. Learn to love the kid.

What *is* this game? It looks superb, beyond **Rasputin** in wild visual imaginings but with a much more complex plot. There seemed to be no more permutations of monsters possible — yet here we have several new species. There seemed to be no more games ideas to develop — but here are a dozen. And it's got sound effects like *Iron Maiden* tuning up.



▲ A pleasant garden scene ● Think you've time for a rest? ● Nah . . . ● The chef has the milk bottle

I almost think **Prodigy** is too clever by half but in the end I come back for more, and more.

So, what *is* this game? Let's say brilliant. Like nothing else. If you liked **Cylu, Knight Lore** or **Molecule Man** that might mean you have the right sort of mind for this, but in the end you're on your own.

This is the sort of game that makes you write like an NME journalist. Why? It's like that ■

At the last count about twenty-seven people had explained to me, why it would never be posible to convert **Uridium** to the Spectrum.

I almost believed them. A mistake. Here is **Uridium** on the Spectrum and its a closer convertion than anyone could have ever dared hoped.

Uridium was No 1 game on the Commodore, and proved that, done correctly, there was photon power in the old zap 'em up yet.

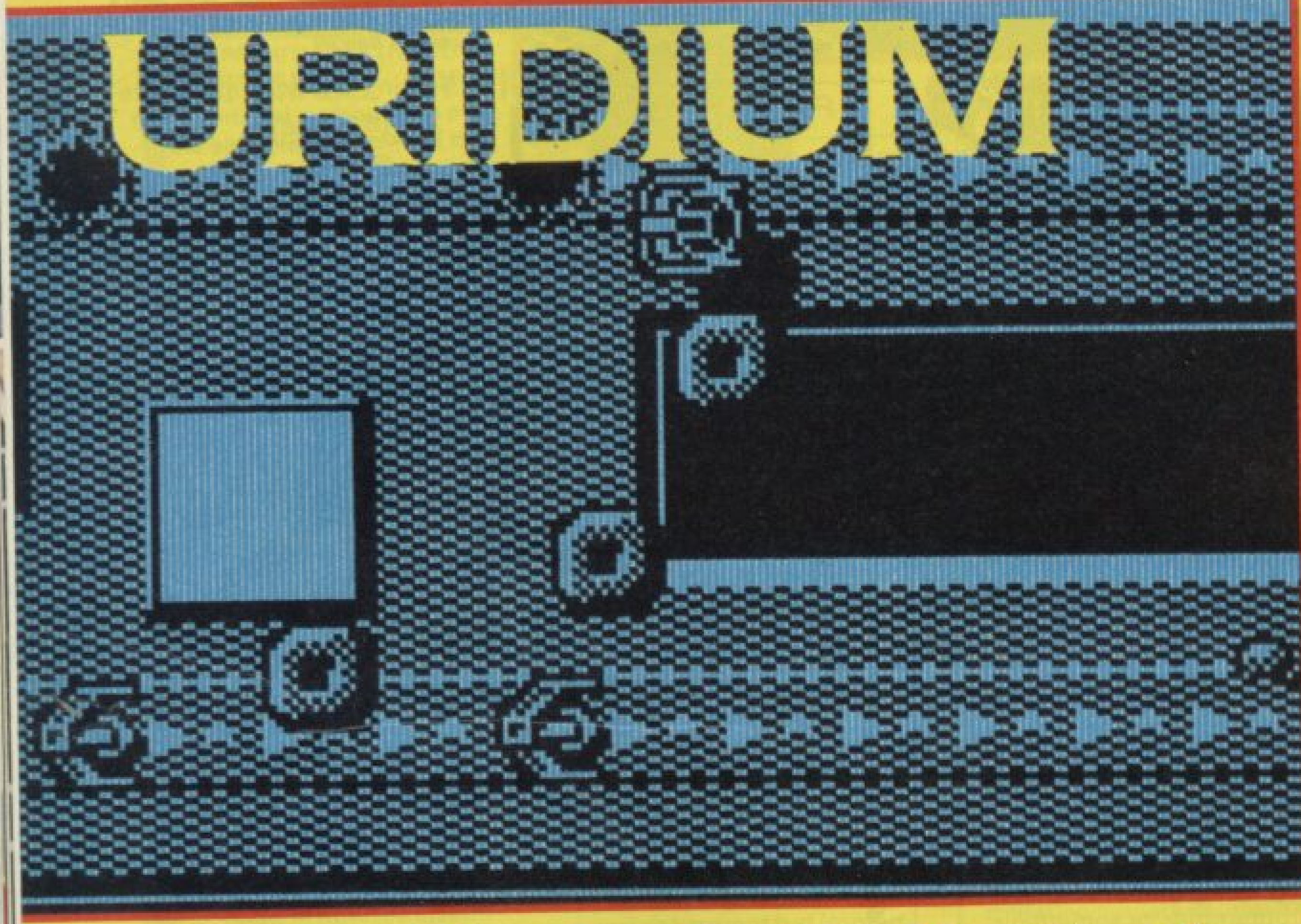
More than life — freshness, excitement and exhuberance.

The plot: destroy a giant space aircraft carrier (that's what it looks like), by first destroying all of its defensive forces — waves and waves of variously shaped ships that hurtle along its length. At the same time blast various gun emplacements, shields, blocks and other features built on the fuselage.

Now, aside from the problem of not being shot down by the increasingly vicious defensive ships there is another problem — it is very easy to hurtle straight into any one of a dozen or more obstacles on the ships surface. This causes you to explode into a ball of flames, generally a bad thing.

Actually, if you think about it,

URIDIUM



HINTS AND TIPS

- **Learn the space carrier layout carefully**
- **Don't fly over the generator ports because they dispatch homing mines**
- **Remember to do a ninety degree flip when flying through narrow spaces — ie, between aerial masts**
- **For the safest result attack alien waves from behind as they always fire forward**
- **Destroy complete alien waves to gain bonus points**
- **Shoot all ground targets to gain bonus points**
- **Avoid areas on the carrier with long shadows — this denotes a higher level surface you could crash into**
- **To gain height to fly above alien missiles change direction using flip**
- **After the *Land Now* message appears on screen, land on the master runway of the carrier as soon as possible to avoid the extra-nasty aliens**

◄ Ground based fighters obliterated ● You're under attack ● Get behind them to wipe them out

SCOOBY

"Hey where are we? I don't like it here — its old and kind musty smelling"

"Hey has anybody got a light?"

"Yeah, hang on I'll get my torch"

"My God! We're stuck inside an old platforms and ladders game!"

"Hey I didn't think there were any of them left"

"Don't you see? Everything fits, see how the screen is split in different levels and there are these stairs that carry us up and these sudden holes that we might fall through if we're not careful"

"Yeah, and there are all these spooks and stuff — didn't you notice how they suddenly appeared from behind doors and how you could only get along each level by having Scooby punch them"

"I've been wondering about that. Scooby's never acted like that before, I mean he's usually completely terrified"

FACTS BOX

Ancient platforms and ladders idea regenerated somewhat by some excellent cartoon-quality graphics

SCOOBY DOO
Label: Elite
Author: Gargoyle
Price: £7.95
Joystick: various
Memory: 48K/128K

Reviewer: Graham Taylor

★★★★☆

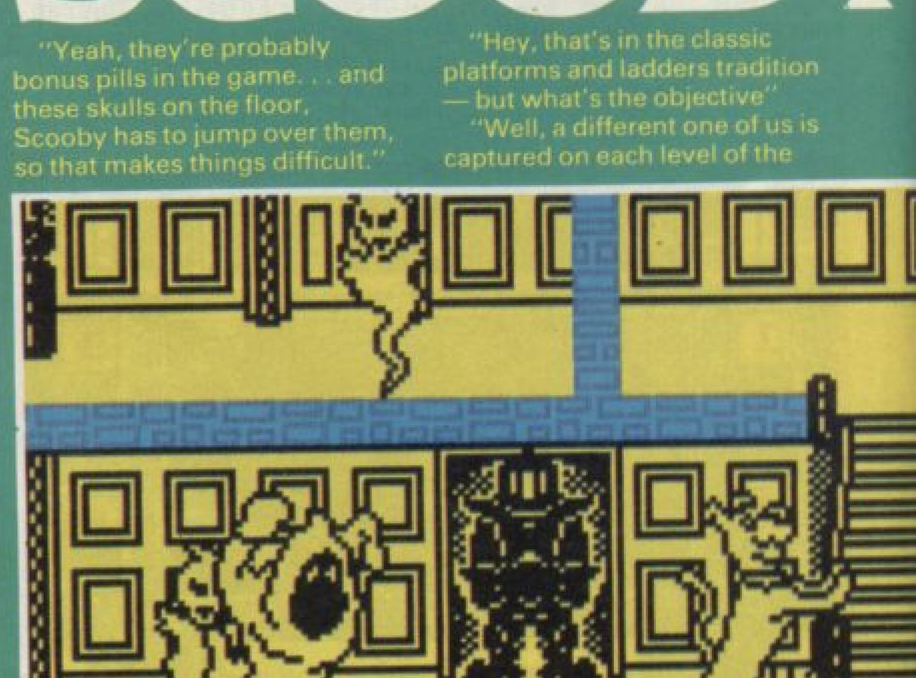
"That's called marketing. Nobody would want to play in a game in which you only ran away from things, also it brings in a vaguely **Exploding Fist** element, a sort **Kung Fu Scooby**"

"Then there are all these Scooby snacks lying about. . ."

"Yeah, they're probably bonus pills in the game. . . and these skulls on the floor, Scooby has to jump over them, so that makes things difficult."

"Hey, that's in the classic platforms and ladders tradition — but what's the objective"

"Well, a different one of us is captured on each level of the



ARCADE REVIEW

FACTS BOX

Superb arcade game. Smoother faster, slicker and more challenging than almost everything else you can currently buy

★★★★★

URIDIUM
Label: Hewson
Author: Dominic Robinson
Price: £8.95
Memory: 48/128K
Joystick: various
Reviewer Graham Taylor



Some sharp joystick work necessary to get through the gap and around the aerial mast ▶

the above description would do for any one of a thousand arcade games. So what makes **Uridium** so special? Not easy to say but I think it's the slickness of the presentation and the speed and smoothness of the movement.

The only other program around at the moment to compete with it as far as making the Spectrum look like an arcade machine is **Lightforce**.

The sprites are elegant and sharply defined, the scrolling is very smooth (17 frames per second it says in the blurb) and virtually flickerless.

Maybe my favourite section to the whole game is the way your attack fighters turn in a tight corner — executing a perfect 90 degree roll combined with a half turn. And on later levels, you'll need to fly edge-on to swoop between narrow channels on the ship's surface.

What doesn't it have? Well it is mostly two-colour to prevent attribute problems and the sound is, well, limited.

Uridium is going to generate vast numbers of letters to our John Riglar pleading for infinite lives *Pokes*, tips and tricks. Things will get very het up and competitive — what does that all prove?

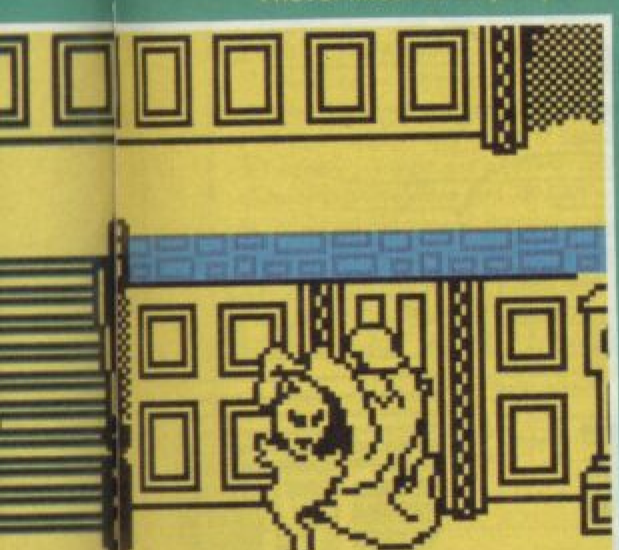
That **Uridium** is wonderful ■

YDOO

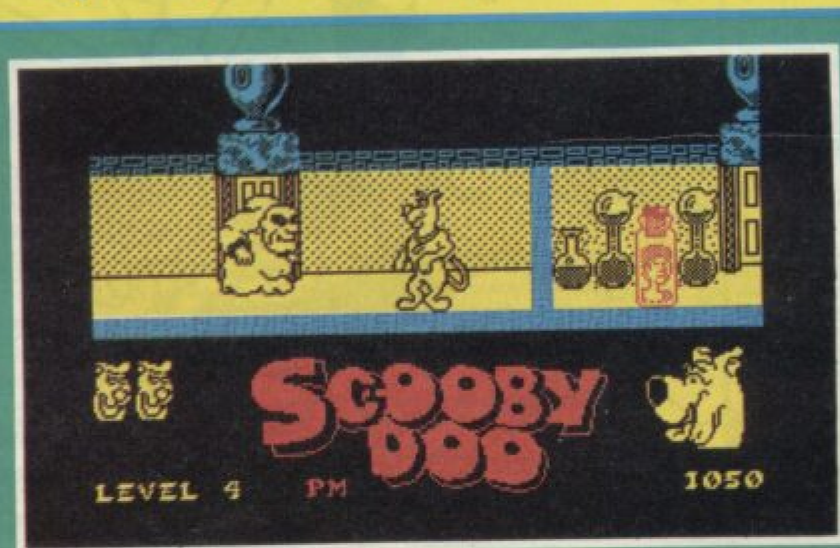
game and Scooby has to fight his way through to rescue us"

"And on the first level Wilma is stuck in a jar. . ."

"I never liked her anyway. . ."



◀ A vast collection of spooks ● Stairs up the next level ● What next?



▲ From a doorway a monster emerges ● Shaggy is trapped in a jar ● How to get there?

"Yeah, but there had to be an ugly serious one of us to offset the stupid pretty one."

"So our predicament is totally hopeless?"

"I wouldn't say that, the graphics are pretty neat, I mean we all look who we are, and Scooby is nicely animated. . ."

"Yeah, and there aren't any attribute problems because everything is two-colour. . ."

"Exactly"

"I suppose it's quite fun in a way. . ."

"Oh yup — the idea might be out of date but the whole thing has been put together quite well. . ."

Who did it — Elite?

"No it has to be someone with a good deal of expertise in animating large sprites, someone who could make us look like ourselves and yet develop a moderately entertaining game out of us. . . someone who tried to remain anonymous but gave themselves away. . ."

"How?"

"They used virtually the same character set on **Scooby Doo** as they did on their famous animated graphic adventures. . ."

(Gasp) "GARGOYLE GAMES!!!!!"

Gargoyle games pull of their mask and turn red with embarassment:

"Gosh, darn it, we was only trying to earn a bit of extra cash to finance our next adventure, we made these ghosts out of some old pixels and on later levels used some bouncing spring-type alien things we had from another game, an' we would have got away with it too if it wasn't for you kids. . ." ■



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ARCADE REVIEW

STRIKEFORCE COBRA



Well, it's certainly clever. And complicated. And big.

Strike Force Cobra is the sort of game nobody even dreamed about in the days before **Knight Lore** proved animated 3D graphics were possible.

I suppose in terms of plot **Strike Force** is a little like **Shadowfire** and in terms of look it's a lot like **Fairlight**. Having worked my way through the first level (armed with twelve cups of coffee and extensive reviewers crib notes (that said things like 'now move the joystick up') I can guess that the game could take months to solve.

It's plot no: 6088/7B. Take one evil criminal genius. Take it as read he wants to blow up the world, and you stop him by getting into a computer. Your mission (should you decide to accept it) is to select four team members (from a choice of eight), enter the enemy fortress and find your way through to the computer. Getting there involves much opening of locked doors (unusual, that) and much finding of computer room codes — by freeing hostages.

The first of a great many steps is to choose your team — actually I doubt that it matters which four you pick from the eight in terms of playing the game — but for reasons of taste you may not wish to select some of the more gruesome options. (They are digitised computer journalists and therefore not a pretty sight.)

You can switch between the four members of your team at any time and the real skill of the game comes in working out how to get the team members to work together effectively.

First orientate each member of the team relative to the others and arrange for them to meet up. There are various rooms which contain door control mechanisms which open shutters in quite separate sections of the fortress — perhaps the ones blocking the path of some other member of your team.

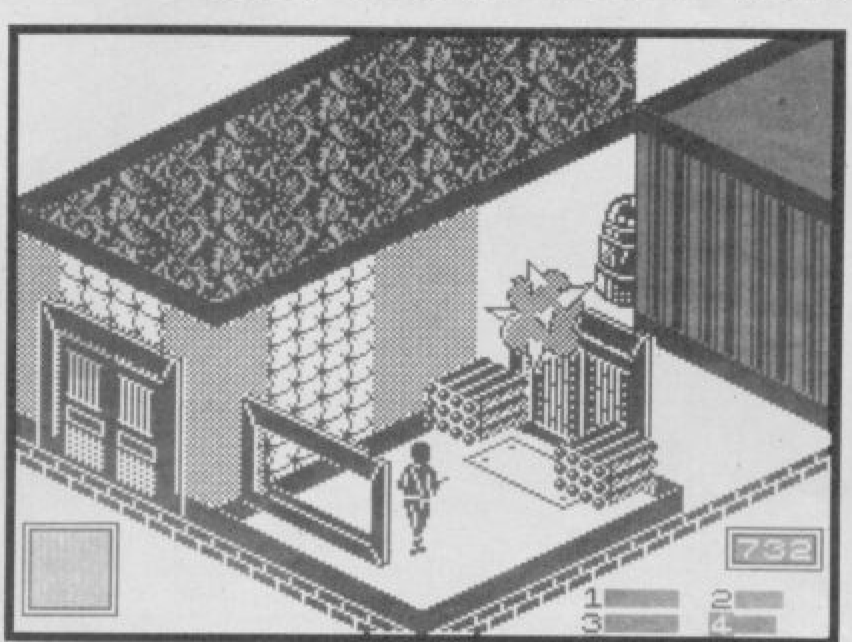
There are of course lots of things: round things, square things, hexagonal things. Very many of them attack you. Some attack you accidentally, others go straight for the jugular.

Your comandos are capable of a variety of movements, all of which will come in handy at one time or another. Diving can get you over obstacles and through windows (and makes you feel macho). Jumping achieves similar results. And crouching is sometimes vital to avoid gunfire.

Your team members get tired, too. I had an entertaining few minutes making one of my unit crawl everywhere on his knees and whenever he got tired — which was every few steps — he wiped his feverish brow. I haven't laughed so much since I tried to starve Activision's **Little Computer Person**.

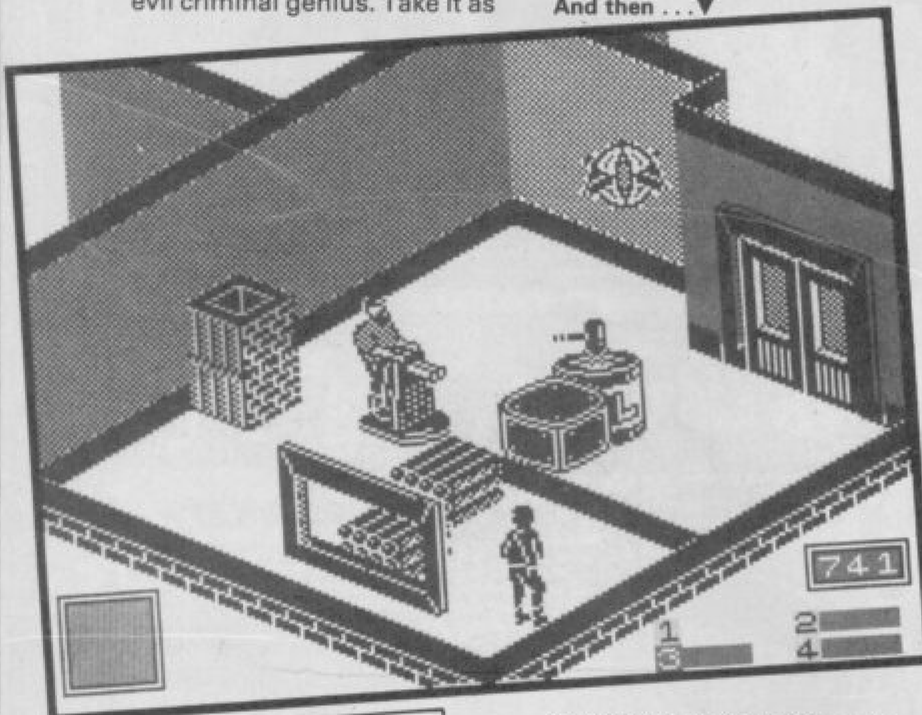
Now all this would be wonderful and the game would get a Classic rating were it not for the fact that the game doesn't really look that good. It *is* 3D, but the animation is very jerky and the perspective is sometimes very confusing. Some of the characters are just not very well drawn. This detracts from the tension in a major way.

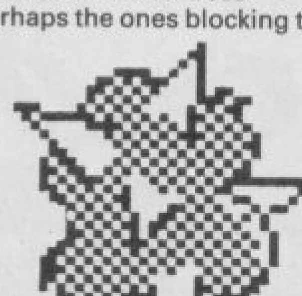
Strike Force Cobra is clever, complicated and big, I don't think it looks very good and I was infuriated by the slowness of response. Treat it as an enormous puzzle rather than an arcade game and you may be less disappointed ■

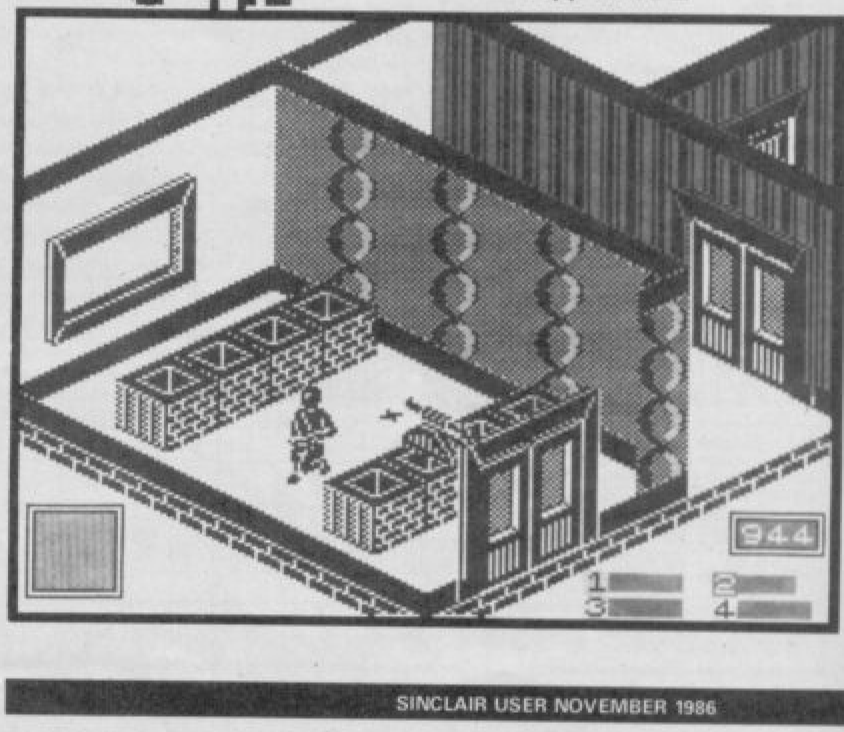


Destroy the orb and dive over those bundles ● Then avoid the man ● And then . . . ▼

▲ The footplate might open the door ● But what will it do to those piles of dynamite ● A robot lurks to trap the unwary







A hail of bullets from the machine gun ● Take it out with a grenade ● And escape by diving through the window ▶

FACTS BOX

Vast 3D arcade strategy game. Big on complexity but partly spoilt by jerky animation and inferior graphics

★	STRIKE FORCE COBRA
★	Label: Piranha Author: Five Ways
★	Price: £9.95 Memory: 48K/128K
★	Joystick: various
★	Reviewer: Graham Taylor

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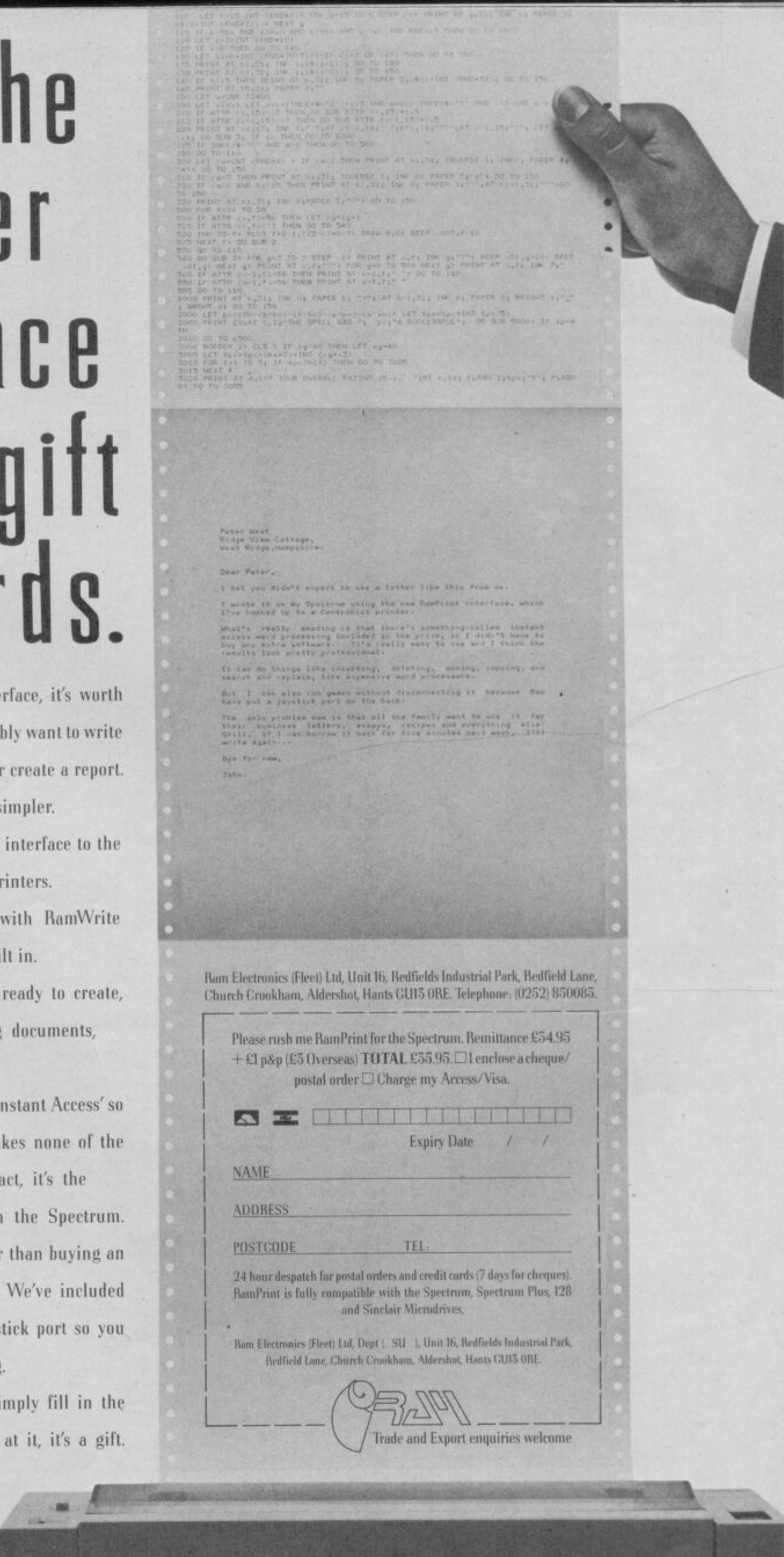
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128K +2



THE LANGUAGE OF MUSIC ON THE 128

Let's face it, whatever else the Spectrum is famous for it isn't its sound capabilities. That's all changed, now, with the new 128K+2. It's finally got some respectable sounds plumbed in.

Sure, the three channels of sound and/or noise looks much the same on paper as many of the other machines on the market, but where the Spectrum scores is where you fit in. Most micros use stuff like *Sound* 20,103,10,-4 to bring forth sweet music. If you find that friendly, you're a better man than I, Gunga Din.

To persuade the 128K+2 (or the 128, for that matter) to produce a note, the magic is a new command called *Play* "A" plays the note called A. To play a sequence of notes, just string them together. *Play* "GABG" plays four notes in a row, and striking the righ chord just is as easy. *Play* "C","E","G" plays three notes at the same time (that's a chord).

The *Play* command is very powerful. Amstrad has a demo, all in Basic which plays ten minutes of Bach on three synthesisers in eight voices — using the micro linked to the synths via the quasi-MIDI port. Even if you don't aspire to several grands worth of technology, *Play* can put a pretty respectable tune through your TV.

Try the one liner — Program 1. For once the 128K+2 documentation is almost adequate and, with the aid of the manual, you should be able to find out what go ping and what go chhhh.

Play does have some limitations. For example, like Beep, everything else stops when it's running. And as it, like Mantovani, uses strings, fast effects can be quite difficult. When talking interrupts all of a sudden.

There is an alternative. The sound chip can be driven directly by using *Out*, bypassing *Play* altogether. The chip is quite a complicated beast, and a full explanation of what it does and how it does it would be out of place here (it's in the 128K+2 manual, by the way).

But, just for example, Program 2 sets up the three voices so that they are almost, but not quite in tune. Try different values of pitch. You could also try changing the 248 in Line 60, as different values here can introduce noises of various kinds.

Strange to relate, this sort of program actually works better in 48K Basic than in 128K Basic. The reason for this is lost in the mists of time, but basically (sic) the sound chip also controls the mythical keypad, and every so often the computer asks it to check and see if one's been plugged in. If this happens when you're writing a sound to the chip, then you lose the information. Of course, in 48K mode the computer knows nothing of keypads, but the *Outs* still work.

dOut is a very simple instruction for the computer, so you can do lots of them in quite a short time. Program 3 (run it in 48K mode) just goes 'peeeow' (sounds groovy), but it does show how lots of things (well, two) can happen at once.

Also, the sound continues even when the program's been stopped. Once the sound chip's been started, it's quite happy to carry on until the processor tells it to stop. Even if you type *New* or load a tape, the sound will just keep going. This means that, once you've mastered the ins and outs of *Out*, Basic can be persuaded to play tunes and get on with other things at the same time. If you're feeling really keen, you could even make the Spectrum go *Beep*. Four channels. Now that's what I call music.

Question: What's got two screens, famous characters, supportng features and technicolor titles? The answer's not your local Odeon, but the Basic editor found on the Spectrum 128K+2 somewhat ignored of late, it's time it had a bit of the spotlight.

The hardened Spectrum owner might feel lost at first. Instead of the multi-mode cursor at the bottom, there's a flashing blue blob at the top. Press a key, and no keyword springs up. Instead, everything must be typed in full, even the <= tokens. On the 128K this can be doubly confusing, as all the keywords and symbols are still there. The 128K+2 with its standard keyboard, presents no such distractions. A line that's typed in gets treated by the computer in exactly the same way as a line on a 48K Spectrum. If it's bad Basic, you can't leave it until you've corrected the syntax. At this point, instead of the flashing '?', the cursor turns an angry red and the Spectrum makes a funny noise.

Got the line in? Good. Once past the parser, lines go into the listing, again pretty much the same as the old Spectrum, but this time pressing *Cursor Up* actually moves you arond the program. You can add bits anywhere, and long lines are just as fast to edit as short ones.

Pressing *Edit* in the editor brings up the Options menu. This gives you access to the *Renumber* facility (start Line 10, steps of 10 unless you *Poke* 23444 and 23446 with summat different), the lower Screen, and an option to print the program listing to the serial port. The Screen option makes the editor work entirely in the bottom two lines of the screen — the top 22 lines are never touched.

This is fun when playing with graphics, as you can fine-tune routines and see what happens without losing your old output. As *Run* clears the screen, try and use *Goto* if you want to preserve your plottings.

Also useful for graphics is the silicon disc. This is the way the Basic, which lives in 48K, gets a handle on the other 80K of Ram. Silicon disc is perhaps a misnomer. It looks a very fast tape to Basic in that you can *Load, Save* and *Merge*. But you can't open a channel. As it's so fast, you can store away ten full screenfulls as *Screen*$ and flip them out niftily enough to look like animation. Try Program 4 . . . you'll believe a Spectrum can fly! The same techniques can be used to move any memory around fast. Useful for machine codists everywhere.

The silicon disc is also useful for Very Big Programs. Design a program in modules — always a good idea — and you can have 20K or so of program and four or five 16K chunks to be *Merged* in as you want. Makes Basic almost bearable.

The old favourite *Lprint, LList* and even *Copy* have been rerouted to use the RS232 port. *Copy* needs an Epson compatible to work, but it gives a pretty good screen dump. Beware — if you try to send anything below the ASCII code for *Space* (32), the Spectrum thinks you're trying to set a colour, and stops it reaching the printer. So you can't send printer control codes to set condensed characters or things like that from Basic.

And then there's the sound. There's still the old faithful *Beep*, but *Play* gives control over both the three-channel sound and the MIDI port.

If all that's not enough to wean you away from single-key entry, it's still there. Either type in Spectrum in 128 Basic, or select 48 Basic from the first menu that appears. But there's no way back to 128 Basic, other than resetting, so that's for diehards only ■

```
 10 PLAY "M21UWOX1000N3cCCceEEegG1gfecCceE(cC))" ,"U3a&&&)","5$BAGE&&&&FAGC((&&
&))H"
```

▲ Program 1

```
10 INPUT pitch
20 RESTORE
30 READ a,b: IF a=999 THEN GO TO 10
40 OUT 65533,a: OUT 49149,b
50 GO TO 30
60 DATA 0,20,1,pitch,2,25,3,pitch,4,23,5,pitch,7,248,8,15,9,15,10,15
70 DATA 999,1
```

▲ Program 2

```
10 OUT 65533,7: OUT 49149,254: OUT 65533,0
20 FOR f=0 TO 255 STEP 10: OUT 49149,f: PRINT AT 0,0;f: NEXT f
```

▲ Program 3 ▼ Program 4

```
 10 FOR f=30 TO 110 STEP 7
 20 CIRCLE f,145,f/5
 30 NEXT f
 40 PRINT AT 3,7;"Spec-tacular!"
 50 SAVE ! "cone"CODE 16384,2048
 60 SAVE ! "blank"CODE 18432,2048
 70 FOR g=1 TO 0 STEP -1
 80 FOR f=0 TO 32
 90 PAUSE 1+g*(33-f)
100 LOAD ! "cone"CODE 16384+f
110 NEXT f: NEXT g
120 FOR i=0 TO 10
130 FOR f=0 TO 2: LET g=f+1: IF g=3 THEN LET g=0
140 LOAD !"blank"CODE 16384+(2048*f): LOAD ! "cone"CODE 16384+(g*2048)
150 NEXT f: NEXT i
160 FOR f=0 TO 4096 STEP 32
170 LOAD ! "cone"CODE 16384+f
180 NEXT f
```


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HIGHLANDER

One of the 'hottest' titles of the current craze is **Highlander**, Ocean's arcade game from the Christopher Lambert fantasy film.

Lambert plays the Highlander, an immortal born in Scotland during the 16th century and now living in New York. Armed with a Japanese sword, given to him by fellow immortal Sean Connery, Lambert has to battle down the centuries with the evil Kurgan, a nasty piece of work with an overexposed tongue (at least he does have in the film).

The immortals are assembling in New York for the Gathering — a fight to the death for the



▲ My what big teeth you've got ● Highlander

prize, billed as as 'a power beyond imagination'. Of course, there can be only one winner, everyone else must die — by being decapitated. Gamely, Lambert tries to keep his head while all around him are losing theirs.

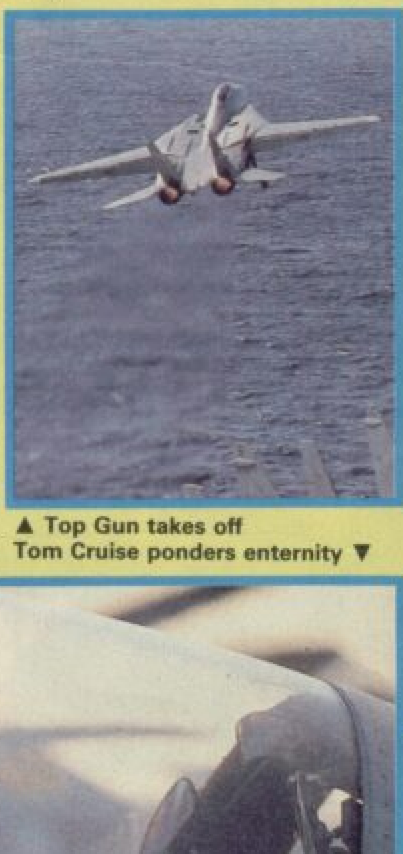
The final fight was the obvious sequence on which to base a game but, sadly on early pre-prod evidence it's not one of Ocean's better efforts. You control a sword-wielding character, battling with a similar opponent controlled by the computer. You can cut, thrust and parry, the object being to cut off your opponent's head. If you succeed, the aforementioned head flies off backwards and disolves along with the body, leaving you the winner. It's little more than just another combat game with too little variety to sustain interest. The graphics are intricate, and nicely animated but, graphics alone aren't enough. The movie, though, is definitely worth catching.



The climatic encounter in Highlander — Lambert versus the Kurgen — that makes

TOP GUN

Top Gun — also from Ocean — looks more promising. It's a fast, vectorgraphic arcade flight simulator, based around the Paramount film starring Tom Cruise. The accolade 'Top Gun' is given to the best of America's naval jet fighter pilots. The one pilot who can outfly, out-manoeuvre and out-think his compatriots, and stay alive in the process, makes it become Top Gun. A sort of aerial virility test.



▲ Top Gun takes off

Tom Cruise ponders enternity ▼



The Ocean game is in two parts. First, you must train and hone your flying abilities in order to become the Top Gun. If you succeed you progress to the second part, where your fighter is sent out to do battle with the enemy. It's either a one- or two-player game, you can choose whether to compete against the computer or a human opponent. May the best pilot win. Fast and furious.

GREAT ESCAPE

The Great Escape is rather more down to earth — or under it (groan). Based on the movie with Steve McQueen, James Garner, Charles Bronson and, gasp, David McCullum.

In Ocean's game you're attempting to escape from a heavily guarded POW camp somewhere in Germany. The guards are not overly bright, but they patrol the perimeter fence at regular intervals accompanied by large ankle-biting German shepherds.

It's been programmed by Denton Designs — who did **Shadowfire** — and it looks pretty complex. The huts inside the camp contain a series of rooms complete with tables, chairs and cupboards. They also contain assorted objects such as keys, spades and wire cutters . . .

"OK chaps it's under the pixels for us" ● The Great Escape ▼





akes the focal point of Ocean's arcade title

but no sign of a wooden horse. If the camp commandant (that means he's in charge of the camp) discovers you attempting to escape he'll detain you and increase security. What with him, the roving searchlights,



dogs, patrols, and spot rollcalls it's all pretty hairy. Get caught and you'll be thrown into solitary, deprived of any objects you have managed to collect, and your morale will take a hammering. A series of tunnels underpin the camp and it's easy to get lost. Some of the passages are blocked by minor cave-ins, but you can dig your way out with a spade. The backgrounds are extremely detailed and the characters all look good — pretty much what you'd expect from Denton.



Big Trouble in Little China is another Twentieth Century Fox film that's been turned into a micro game by Electric Dreams. The film is the latest from John Carpenter — responsible for last year's *Christine* horror film and *Assault on Precinct 13*. The game — like the film — is set in the sewers of Los Angeles's China Town, and the plot revolves around three characters, Jack Burton, martial arts expert Wang Chi and ancient magician Egg Shen. These three heroes are attempting to defeat the evil Lo Pan, who had kidnapped the green-eyed Miao Yin — believing that green eyes mean special powers.

Each of the three characters has different weapons, Burton has a gun and his fists, Chi has a sword and his martial arts skills and Shen has magical potions. Decide which character to adopt and fight your way past the palace guards to confront Lo Pan. Watch out for eye monsters, warriors and elementals.



▲ Big special effects in Little China

"You've got a problem wiv your wiring guv" ▼



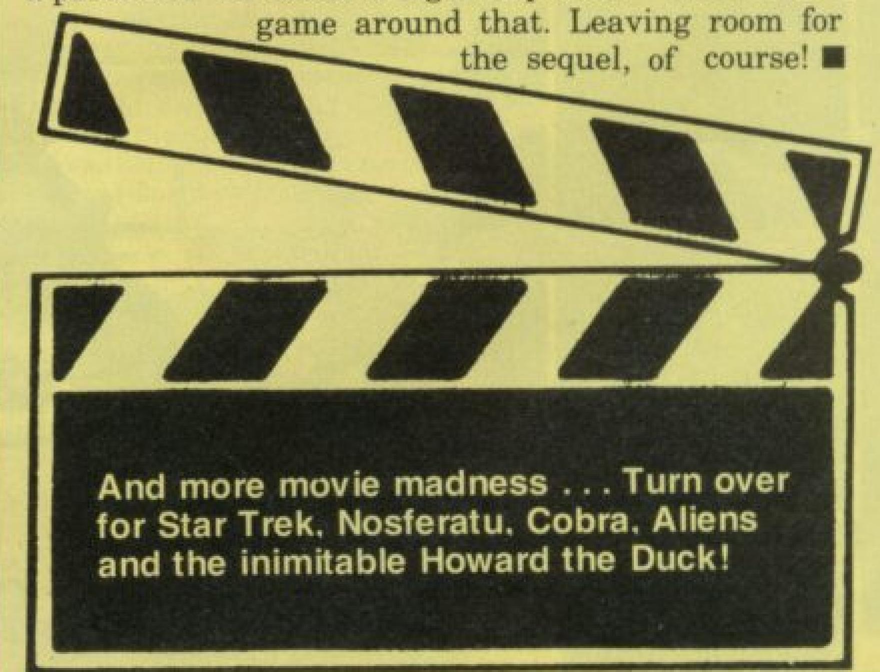
MICROS ☆ In The ☆ MOVIES

What have movies got to do with micros? Quite a lot it would seem. Think of any hit movie — like *Aliens* or *Top Gun* — and the chances are some software house is at this very moment turning it into a computer game. Suddenly it's the fashionable thing to do. Software house bosses tend to be motivated by sales figures — big ones particularly — and by the reaction last year to Activision's very average **Ghostbusters** game, based on the very excellent movie, which became a world Number One selling game.

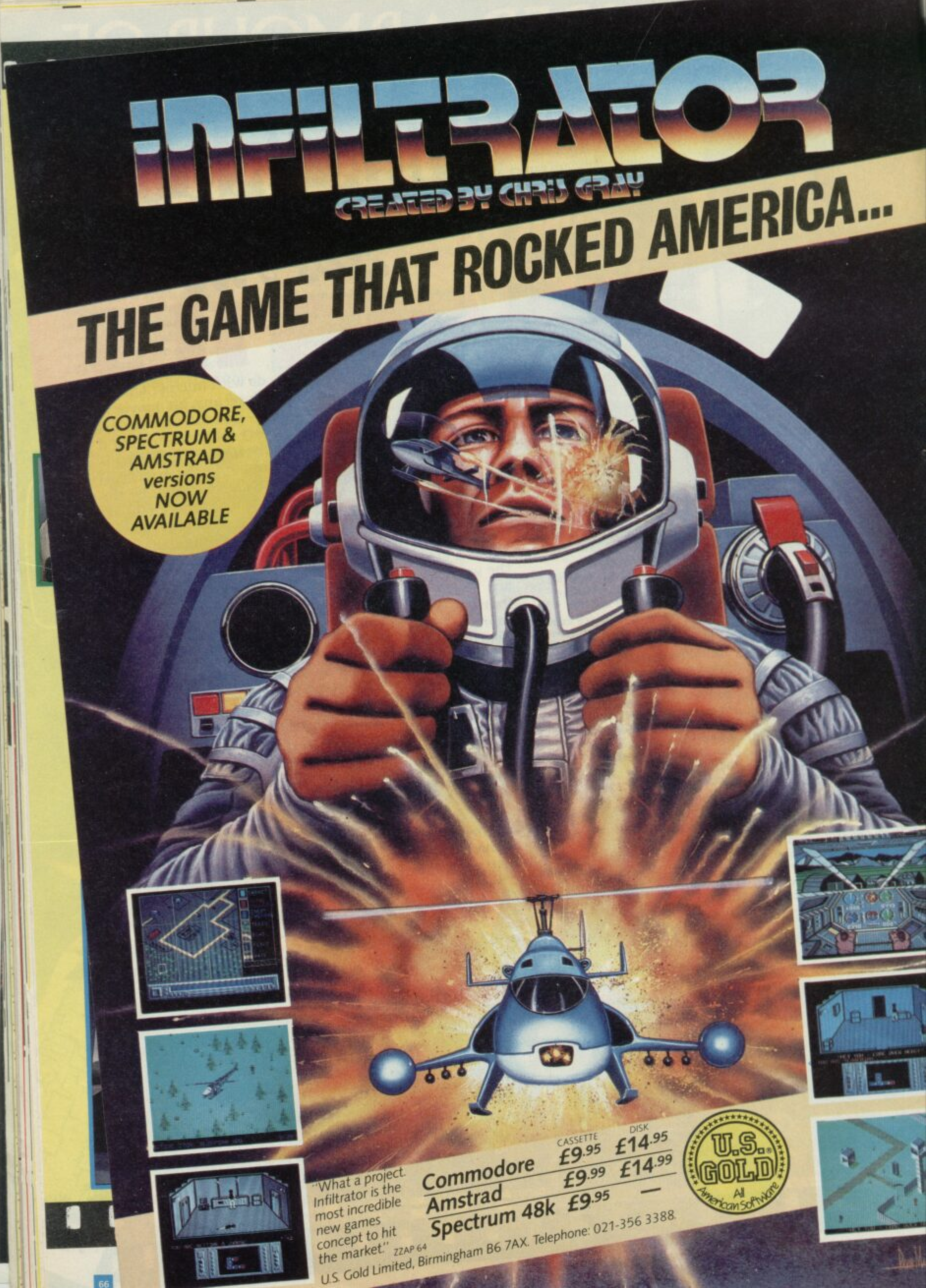
There are other reasons. For a start every good game needs a strong plot — don't invent one, buy it . . . And the game is more exciting to play if the central figures are fleshed-out by being associated with the larger-than-life movie stars. After all playing Sly Stallone in *Cobra* is more exciting a prospect than trying to identify with Wally Week.

Of course it's not that easy. A bad game from a big movie is a bigger flop than a bad game from nowhere. Everyone remembers **Superman** as a gigantic foul up. **Up Periscope** from the same company was at least as bad but nobody remembers it.

How do you take something as compelling as a big budget 70mm film in full colour, dolby stereo with explosions, car crashes and music soundtrack and squash it into 48K with none of these things — yet still retain the spirit of the original *and* make something that plays a good game. It's very difficult indeed. The way most do it is to take just one aspect of the movie — a particular car chase or fight sequence — and build a game around that. Leaving room for the sequel, of course! ■



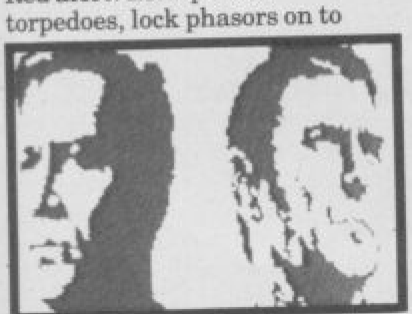
And more movie madness . . . Turn over for Star Trek, Nosferatu, Cobra, Aliens and the inimitable Howard the Duck!


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STAR TREK

Star Trek is another biggie which has been a long time coming and could well be a while yet, by the sound of it. The TV series, the movies, the books and now, finally, a computer game which does justice to the scope and imagination of the *Star Trek* theme.

The game, from Beyond, combines elements of strategy, arcade action, simulation and adventure to form a blockbuster. Red alert! Load photon torpedoes, lock phasors on to target: the star ship Enterprise is ready to boldly go where no man has gone before. Star Fleet Command has isolated a region of space in the Sagittarius arm of the galaxy within a Klein sphere, an interstellar barrier which prevents all matter from passing through it, in either direction. The quarantine zone has had to be imposed because some 20 Federation star ships, in the vicinity of the star Adakiak, have turned renegade — and switched their allegiance to the Klingon empire.



Just before Star Fleet Command set up the Klein sphere, it sent the USS Enterprise, complete with Capt Kirk, the ear waggling Spock, Bones, Sulu, Lt Uhura, Scotty and Checkov, into the zone. The ship, now cut off from the rest of the galaxy, is still in sub-space communication with Star Fleet Command. Your mission — should you choose to accept it (sorry, wrong series) — is to find out why the star ships turned rogue and if you succeed, the Klein sphere will be dissolved and normal relations reestablished with the rest of the galaxy. Fail, and the 1,000 stars in the quarantine zone and all their inhabitants will be permanently trapped.

Trekkie fans will love this game. So will non-Trekkie fans. Who hasn't wanted the chance to command a star ship and put the galaxy to rights?

You control the ship by assuming the personae of the Enterprise crew. Thus, if you want to communicate with Star Fleet, or an unidentified ship, you adopt the role of Lt Uhura. Scotty runs the engines and Capt Kirk makes the command decisions.

Tactics are up to you. If an unidentified ship appears on your long-range scanners, you can try and establish communications, manoeuvre to try and avoid it or attempt to blast it out of the ether. As you explore the quarantine zone you'll encounter a number of star systems, assuming you haven't already been taken out of commission! If any of the planets look interesting, you can set a flight path for the Enterprise to orbit the planet in question.

Digitised pictures of the Enterprise crew show your choice of character and, Star ships are shown as 3D vector graphic line drawings moving through space. Overall, the graphics are everything you would expect from a design team which includes Mike Singleton (of **Lords of Midnight** and **Dark Sceptic fame**). . . superb.





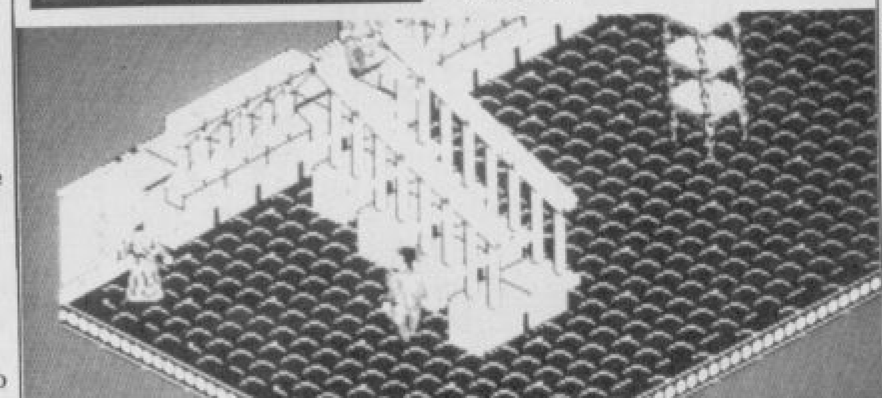
Star Trek looks like a big hit for, BT even knocking **Elite** off its pedestal.



In a different vein (that's funny — ed), Piranha has turned to a Twentieth Century Fox horror film *Nosferatu the Vampyre*. This graphic adventure takes place in Castle Dracula and stars Bram Stoker's blood drinking creation.

The object of the game is to destroy the evil vampire, who suffers from an aversion to daylight, holy water and wooden stakes. Crucifixes are also on the no-no list. One for all adventure fans to sink their fangs into.

Edge-on 3D goes into gothic overload ▼





►►►►►COBRA

I wrote the plot of *Cobra* down but I've lost the stamp.

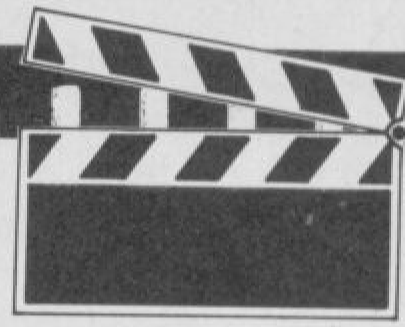
I'll try and remember it. **Cobra** stars dear old Sly Stallone himself as a rough, tough cop charged with protecting a successful model from murderous bad guys. Seems the doll is a witness to some bad deeds and the guys from the wrong side of the tracks want to rub her out.



Bet she screams a lot and builds up a deep and meaningful relationship with Sly. And bet he kills people.

The game — again from Ocean as its follow-up to **Rambo** — is a 3D-scrolling shoot 'em up and features nearly as much violence as the original.

ALIENS



In space, no-one can hear you scream. Yes it's **Aliens**. Sigourney Weaver returns as Ripley, the only survivor from the first film in which John Hurt lost his stomach and audiences everywhere lost their lunches.

Ripley has spent 57 years in suspended animation — almost as long as Michael Jackson — since her last encounter with the alien. Rescued by a scavenger ship, she discovers a human colony has been set up on the planet LV-246, where the alien was first discovered. The planet is being terra-formed, a process by which it is being made liveable for human habitation. Already, the atmosphere is breathable.

Suddenly, contact with the colony is lost and Ripley is persuaded to return with a crack force of space marines to investigate. The game has been based around Ripley's exploration of the colony base and the game design was conceived by Mark Eyles, who was also responsible for the design of **Back to the Future**, also for Electric Dreams.

You control six characters including Ripley, Bishop the android, Burke the company fink and three troopers. Each



A tense moment of confrontation between Ripley and Hicks ● Newt doesn't seem too bothered

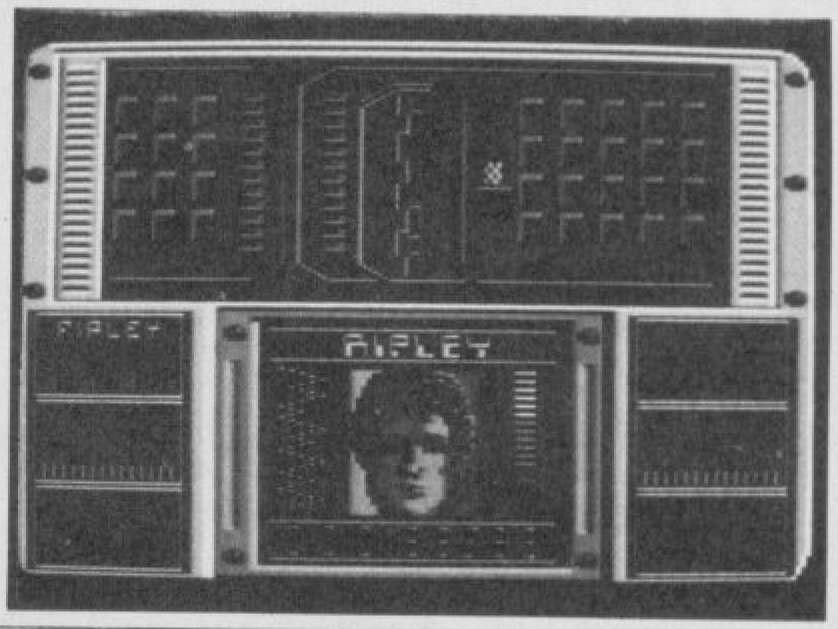
character carries a camera on his or her helmet, which enables you to see whatever is immediately in front of them. Proximity monitors register the presence of living beings, giving some warnings of approaching aliens. The colony base consists of 255 rooms, inclding a control room, a medical centre and a generating room. Clear all the rooms of biomechanical growths, face huggers, eggs, warriors and queen aliens. Each character is equipped with a smart gun to enable you to do this but you must fire accurately. A leg or a arm shot will only wound the alien, enraging it and causing it to be even more vicious than before.

As you play the game, you find the aliens come in attack waves linked to your score — as your score mounts, so the next attack wave is triggered.

The vital life signs of each character are displayed on your monitor, together with readings for amunition and score and a picture of the character you are currently controlling is also displayed. The top part of the screen shows the visual display from the character's camera. Bonus points can be earned by clearing a room of aliens while Newt is in residence. Newt is the only survivor from the human colony established on LV-246.

Electric Dreams has done well — and the film is worth seeing too. Yuk!

Early demo screen from the C64 development system ● Top window shows the player's eye view ▶



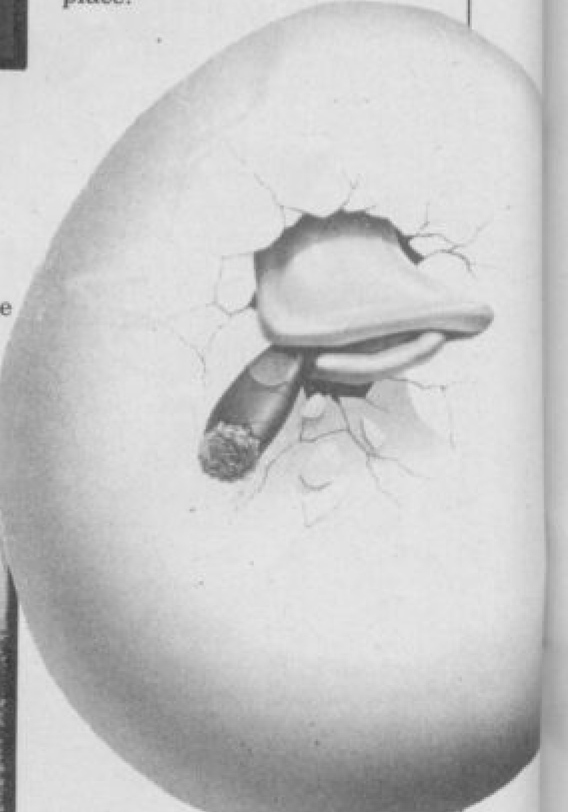
HOWARD THE DUCK

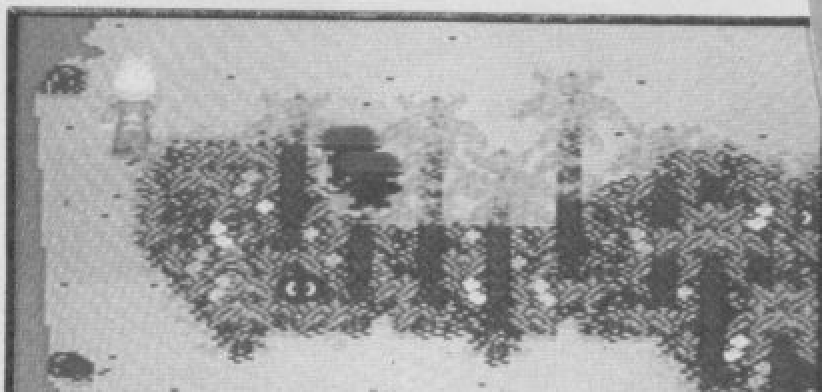
Howard is an ordinary kind of duck with the kind of normal everyday interest in sex, cigars and windsurfing you'd expect from a regular aquatic bird.

As he's the only duck ever to have quacked it in the underground comic book superhero market, Howard had, inevitably, a future in the films.

In November the *Howard the Duck* movie will be with us and fans of the no-nonsense drake who have seen the film reckon it's a fair tribute to the Howard of the comic. It concerns his exploits following his unexpected removal from Duckworld, far-off planet, to Cleveland, Ohio, by a time space whatsit and the adventures he has trying to get home.

The game is a sort of general purpose arcade, strategy, everything affair. It's mutated the film's plot slightly: in the game Howard is parachuted in to a remote volcanic island armed only with his Quack Fu skills, a microlight aircraft and a laser. His task is to rescue some of those American teenagers that probably don't deserve to be rescued in the first place.





◀ Howard on the C64

Whatever else, the vision of a duck making kung fu moves ought to be pretty astonishing. Although — it must be said — the Commodore 64 version on show at *PCW* didn't look any great shakes.

Game is due mid-November ■



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power beyond imagination. The distant time is now. The place, New York.



SOUND SAMPLER

Maybe Cheetah has missed the boat. The sound sampler it's recently released will inevitably be compared to the Ram Music Machine.

Ram's unit combines a sampler, MIDI, and built in software and the Cheetah Sampler costs about the same, has no software built-in and lacks MIDI.

Does it stand a chance? Well, maybe.

If you're any sort of serious musician, perhaps with existing MIDI gear it's very doubtful that the Cheetah package will have much to offer when compared with the MIDI-compatible Ram system.

On the other hand if your interest in sampling is less serious and you just like the idea of making strange and/or silly noises and fiddling around with your voice then as sampler pure-and-simple this Cheetah package might just be a better bet.

What you get is a black joystick-interface-sized unit which fits on to the Spectrum edge connector. Also supplied is a microphone which connects into one side of the unit. There is another lead which connects from the unit into the back of a hi-fi system (it ends in a phono plug so if your hi-fi uses DIN then you'll need a new plug).



If you haven't got a hi-fi an alternative is to buy an adapter (phono to mini-jack) and connect the thing into the mic socket of your cassette player. The quality won't be anything like as good however.

So you play your sound into the microphone where the black box samples it — effectively it gets digitised. Then you change it, twist it, cut it up — whatever you want — and play it back at a different speed or pitch through the hi-fi or cassette player amp.

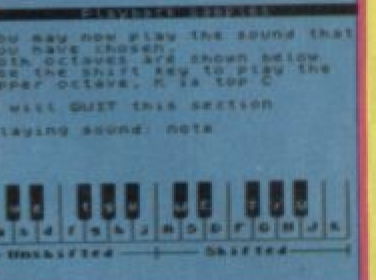
A single tape contains all the driving software for the system. There's the sound sampler itself, a number of digitally-encoded test samples including a bell (that old standby) and someone saying 'hello'. The final program on the tape is a real-time sound utility program, of which more in a moment.

The sampler software is at the same time both sophisticated and awkward. One of its many features is a volume level check facility that allows you to adjust the volume levels exactly for the best possible sampling — it works by producing a graph of the volume of input. If the peaks of the graph waves are just contained within the screen volume level is good, if the peaks are 'clipped' then you will start loosing sound quality.

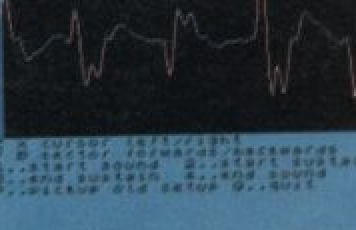
You can actually get your sound into the machine in two ways — either via the microphone provided or using a line input using the same socket. When taking a 'sample' first indicate how many memory 'units' you wish to allocate to the sound. The unit appears to be 1/144 of a second and you evaluate units required purely in terms of length of the sound.



Then you go 'wee' or 'boing' or 'woof' or 'meow', or make any one of those thousands of noises beloved of hi-tech rock bands (anyone who says 'nineteen' gets their wrist slapped). And then you hit the first real snag with the Cheetah system. Once the sample is complete, you can't just play back the sound — it has to be configered first. This involves determining exactly where the sound is to begin, where it sustains, where the sustain ends and where the sound ends. Confused? So was I.



What it means is that in the period of time you have sampled (in which you said 'woof') you might also have breathed heavily to begin with and coughed at the end. Using the system you edit those bits out by fixing markers on to a graph of the sound which shows precisely where the sample is to begin and exaclty where it ends. The sustain is simply a section of sound which is 'held on to' until it is time to end the sound like ner, ner, ner, ner . . . (you know what).



This is all very clever and the graph of the sample (which can extend over many screens — you scroll through it) is quite interesting, but there ought to be a way of avoiding this stage if all you want is a 'straight' sample just to try out the system. There isn't.

Having got your 'woof' or whatever, you can save it, reverse it (fffoooooo ooowww) and mix it with another sound (my attempts always sound like radio interference, however).

It is a lot of probably completely pointless fun and with care the samples can be made surprisingly effective — perhaps even marginally better than those attainable using the Music Machine.

I suspect, however, that for some people the utilities program may be the Cheetah unit's strongest selling point. This is a separate program loaded independantly from the sampler software which produces 'live' transformations of input. Put another way, as you speak into the mike it'll do all sorts of silly things to your voice.

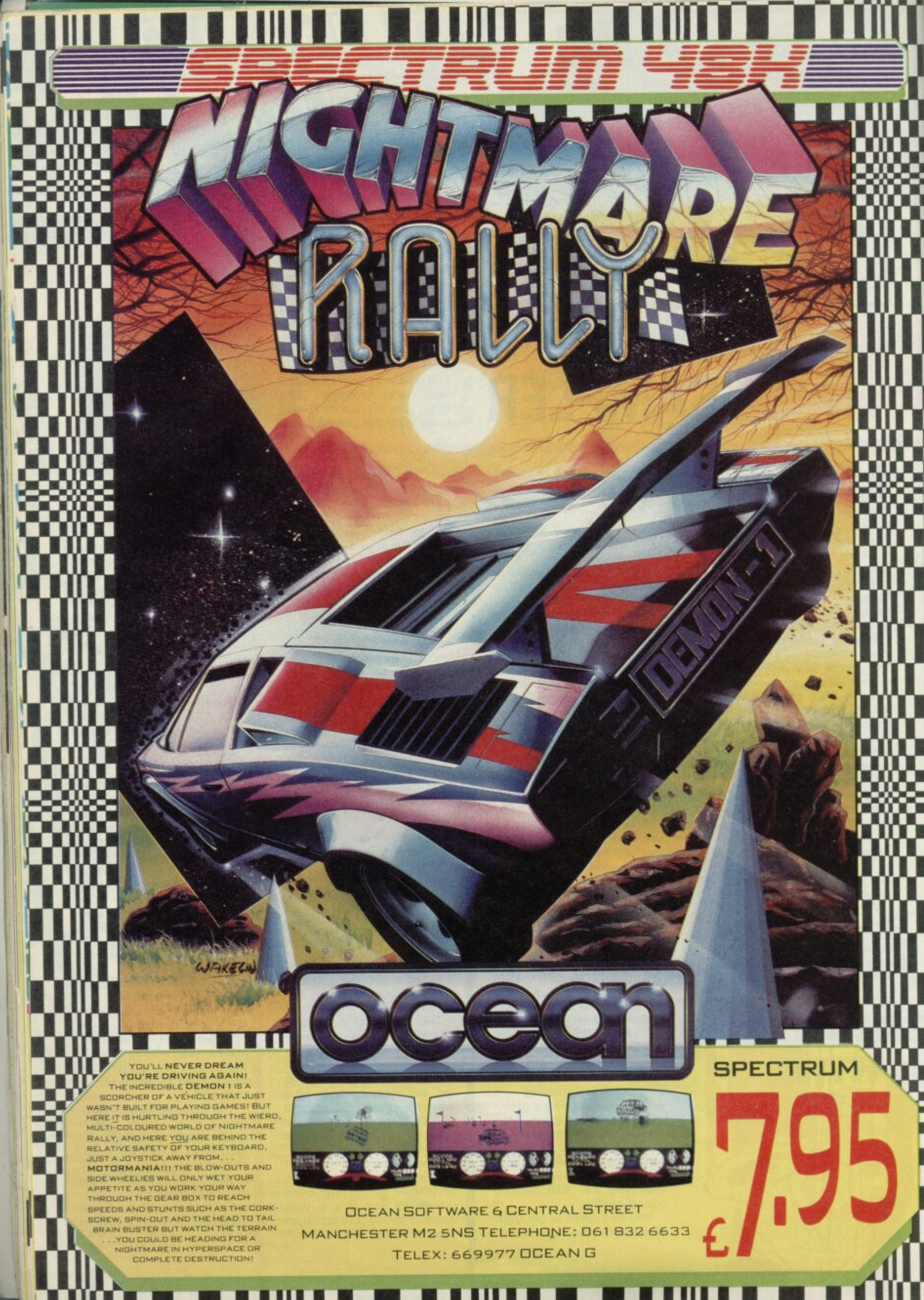
Transformations include *Reverbe, Echo, Fuzz Box* (it makes everything screech as though *Saxon* are in concert. *Sound Chopper* cuts the sound up as though being switched quickly on and off and the *Bubblizer* just makes very, very odd noises.

There is an option to save the software and all files to Microdrive and to use banks of memory for extra samples in the 128K.

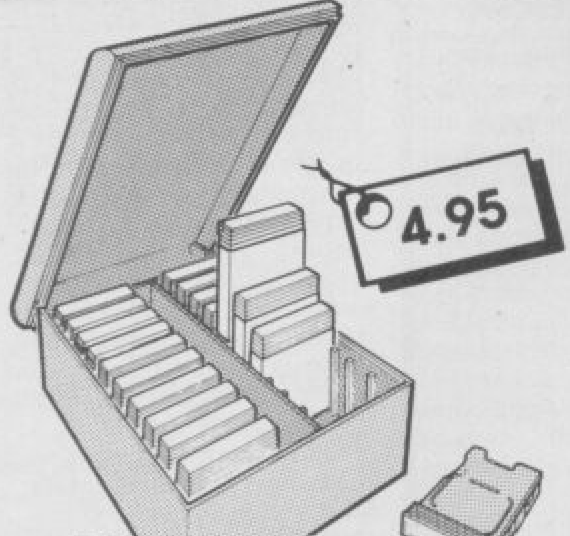
The system seemed to work with no problems and the manual supplied contains basic details of operation (although occasionally leaves you with a suck-it-and-see — "this is a function to be used rather than explained").

The Cheetah Sound Sampler is a lot of fun, I don't really think it stands an earthly as a serious musician's tool now that the Music Machine is around (to be brutal about it).

But it may still be worth investigating if you just want to play around ■


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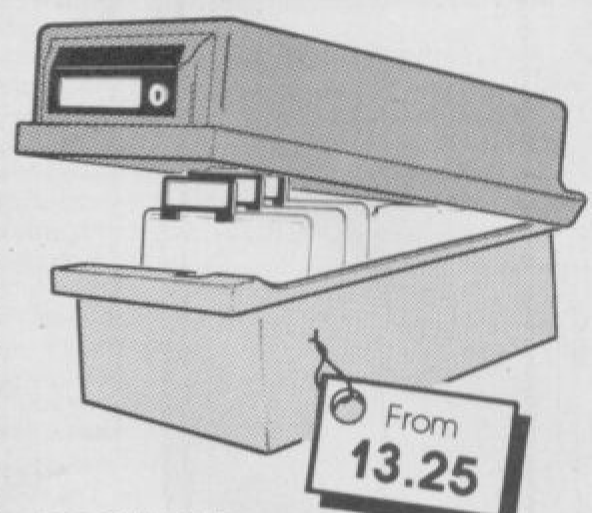
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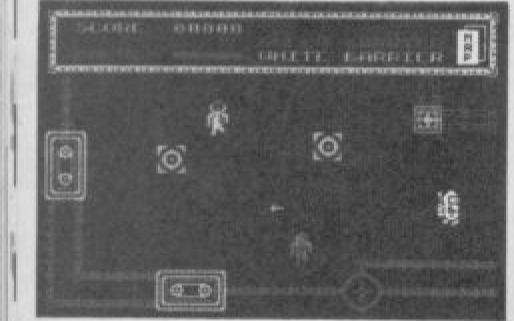
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CAPTAIN SLOG

Captain Slog's captain's log. Star Date: 11.09.9816. These are the voyages of the starship Spectrum.

It's an interminable mission, to find the nine blueprints of the planetary base you're trapped



in and break into the teleport room where you can escape back to your ship.

The base is a flat maze, split into sections by impenetrable laser shields and patrolled by robots. The blueprints are locked in safe rooms within the maze and if you want to find your way out you'll have to find the red, green and blue security keys which switch off the shields. The good news is the shields don't kill on contact — but they do sap you're energy. Lose your energy and you'll end up on the metagalactic scrap heap.

The robots you meet aren't very intelligent — I guess that's why they're guards, not spacemen — but every screen contains at least three or four so it's not difficult to bump into one of them.

Once you've deactivated all the obstacles between you and a piece of blueprint you pick it up. Get all nine pieces, find the transporter room — which you'll probably have spotted before — and you've finished.

Captain Slog is an archiac excuse for a budget game. It's probably been sitting on the shelf at CRL for five years — or at least since ZX81s were rolling off production lines.

Things are getting tough in the budget bins and **Captain Slog's** addictive value is a round zero. Don't expect any entertainment from it or you'll be disappointed ■

FACTS BOX

Witty title, shame about the game. Not a good start for CRL's budget label — it's low on invention, style and entertainment

CAPTAIN SLOG
Label: CRL/Alpha-Omega
Price: £1.99
Memory: 48K
Joystick: various

Reviewer: John Gilbert

★☆☆☆☆

KAI TEMPLE



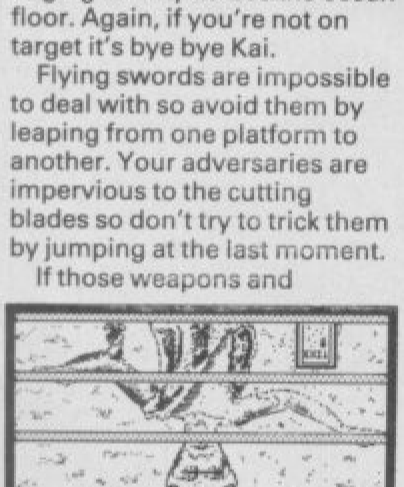
More budget-priced high kicks from Firebird as they release yet another **Kung Fu** rip/take off.

The Kai Masters, famed for their gentle mind cultivating disciplines, have gone loopy and trapped you in their Tibetan temple. Defeat the Ninjas, Devas and flying swords and you stand an even chance, if lucky, of escaping this programming nightmare.

You can kick the Ninjas and Divas to death. Stand in exactly the right position and hammer the kick key. If you're too close or far away you lose one of your four lives, but if you are on target the unarmed assassin melts into the floor. Alternatively you can throw a knife which chugs unenthusiastically across the screen at the speed of a crab edging its way across the ocean floor. Again, if you're not on target it's bye bye Kai.

Flying swords are impossible to deal with so avoid them by leaping from one platform to another. Your adversaries are impervious to the cutting blades so don't try to trick them by jumping at the last moment.

If those weapons and



wielders are not enough the programmer seems to have an Australian sense of humour. Despite your years of training in the Kai arts you still haven't got used to the Tibetan atmosphere, which makes you high. Without warning the world turns upside down and you're on your head facing an opponent. It's a neat trick but it doesn't lift the tedium.

Kai Temple is a simple, two colour, levels and ladders game which becomes hard when you've played it for more than 15 minutes. The bashing is done with two keys and is a one chance only. The game is a one-play wonder which would have been better if the programmer had put in more obstacles and better graphics — a joystick would have been a good idea too ■

FACTS BOX

A kick in the teeth for all fans of the martial arts. Flat graphics and flimsy plot. A let down even at budget level

KAI TEMPLE
Label: Firebird Silver
Author; Ian Wright
Price: £1.99
Memory: 48K

Reviewer: John Gilbert

★★☆☆☆

BUMP SET

Sport was never my strong point, but **Bump, Set Spike** — alias International Volleyball — is great.

Volleyball is just like tennis doubles but the court's narrower, the ball is the size of a football, it's thrown — there are no rackets and you only need ten points to win. Well, OK, it's not just like tennis is it?

When you throw the ball an *X* is shown on the place where it will land and the opponent has to rush to the *X* before the ball gets there.

On some occasions you need to pass the ball from one of your players to another. They each have an identity key set when you select the keyboard only controls at the start.

Bump Set Spike is a budget

FACTS BOX

Above average budget title. Matches up favourably with some of the full-price Imagine Konami conversions

BUMP SET SPIKE
Lable: Mastertronic Entertainment USA
Author: P Ranson
Price: £2.99
Memory: 48K

Reviewer: John Gilbert

★★★★☆

BOMBSCARE

Highway Encounter meets **Knight Lore.** **Bombscare** is not original but it is a technically very proficient program at a budget price.

The **Highway** influence is the strongest. Some of the objects, like little grey pyramids seem directly stolen from the game. More generally, the style of the monsters, central figure and the flooring all have a familiar ring.

Bombscare is all about defusing a bomb, planted by an alien intelligence, in the goodie base. You control Arnold, another one of those cutsy named robots that populate computer games.

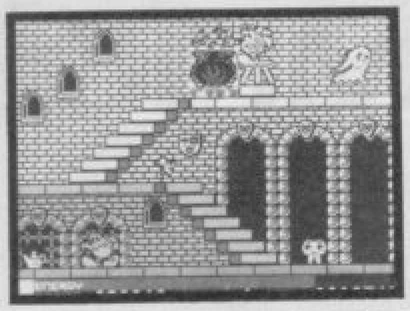
Defusing the bomb involves collecting and using objects. You can hold up to five and have to figure out what does what. Pretty much par for the course, really.

Each room in the base is filled to the brim with aliens which wizz back and forth and are to be avoided. There are transporters but before you can use them you need a security code that represents where you want to go. Getting it requires more investigation. Personally, I think its going to need a computer. I expect there is one somewhere around.

I found some of the screens a bit similar and there really isn't anything too original.

The programming is slick however, the design and animation of the aliens is very smooth.

Whatever criticisms one might make about the plot this is way above the usual quality of budget programs and I wouldn't have put it past some other companies to have put this one out for full price ■



OLLI AND LISSA

Eugene Port Cullis the third (Jnr), mega millionaire, meanie and well known ghost-gutter, wants Shilmore Castle.

He's determined to kick Sir Humphrey, the castle's only haunting attraction, off his historic seat, but Olli and Lissa, have a plan to scare him off. They just have to collect eight ingredients to make Humpy invisible so he can haunt Eugene out of house and home. (Who writes this tripe?)

Anyway, Lissa stands at the cauldron while Olli runs and jumps past the not-so-friendly castle ghosts in an effort to collect the goodies and pop them in the pot. If he's not carefull he could get a nip from the nasties and a deduction from his energy store. With his energy depleted the game ends and angry Humpy beats him over the head with a broom.

The plot is apalling, really. Try this. If he gets an object he collects a kiss from Lissa under the cauldron. Or this: She's a cute little pac-woman who wraps her arms around Olli in an octopus hug at every opportunity.

Olli and Lissa is sure a giggle, and little else. There's alot of Attributes clash and flickers but, the comedy duo carry off the award for best actors in a budget game. That apart, the game has a predictable, if difficult to complete, set of circumstances.

Don't expect an incredibly complex game from Olli and Lissa, but if you're into cute and cuddly — like the editor — take a gamble on this ghost story ■

FACTS BOX

A graphically good but dull pot boiler with cute characters. Very predictable. Lousy plot. Well executed

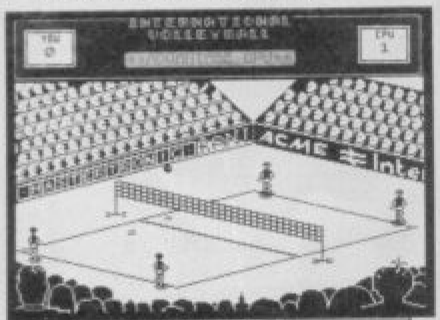
OLLI AND LISSA
Label: Firebird Silver
Author: ISI
Price: £1.99
Joystick: various
Memory: 48/128K

Reviewer: John Gilbert

★★★★☆

SPIKE

game of reflexes which compares favourably with some of the Imagine Konami titles. My only reservation is there is a way to play it so you always win — which I discovered after an hour or so. A definite drawback ■



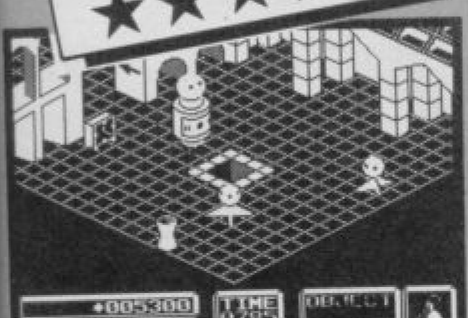
FACTS BOX

Excellent graphically, with smooth 3D graphics. And the budget tag more than compensates for lacklustre plot

BOMBSCARE
Label: Firebird
Author: J Bond
Price: £1.99
Joystick: Kempston, Cursor
Memory: 48/128K

Reviewer: Graham Taylor

★★★★★



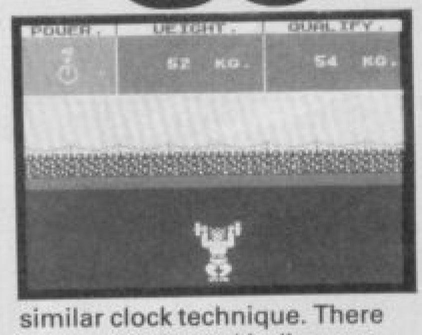
OLYMPIAD '86

Olympiad '86 is a kind of budget **Decathlon.** And you get what you pay for.

There are five 'events' in **Olympiad**, all of which can be completed with your little finger.

Three of the events use a speed/strength clock. A second hand glides round the dial and when it gets to the arrow at the top of the clock you press the *Q* key to acquire speed and strength. This decides how good your lift is in the weight-lifting competition, for example. Hit the *Q* too soon, or too late and your lift is judged as bad and a bi-plane flies a 'Rubbish' message over the stadium.

The 200m sprint — which is more of a crawl — uses a similar clock technique. There are two horizontal indicators on the screen. The first shows the distance you need to cover while the second indicates your speed. To increase speed you keep hitting the *Q* key when the clock hand reaches the 12 o'clock arrow.



You use two clocks for scoring in discus. The first clock determines the power of your throw, a second judges the angle.

Canoeing is fun. Your canoe drifts down from the top of the screen and you use the *O* and *P* keys to steer it away from the blobish white rocks in the middle of the river's rapids.

Shooting consists of two dead trees, a cross-hair sight and skeets which look like fat javelins. The only tip I can give is to find a point on the screen through which both left and right skeets always fly and position your sight there.

Okay, so **Olympiad '86** is a budget game, but that's no longer a good enough excuse for putting out this standard of programming ■

FACTS BOX

Back to the age when graphics were miraculous if they didn't look like Space Invaders and scrolling was hip

OLYMPIAD '86
Lable: Atlantis
Author: In house
Price: £1.99
Memory: 48K

Reviewer: John Gilbert

★★☆☆☆

BUDGET
£1·99 £2·99

VIDEO POKER

The odds are against you in Mastertronic's **Video Poker.** You can't win on a pip-card pair — only a double or royal pair will do.

You get five cards, pushed on to the screen and turned in a neatly animated dealer motion. The standard rules of poker apply. You get your stake back for a royal pair but a royal flush gives you a 250:1 return.

I managed to keep my small pile of nickels topped up but never hit the jackpot and betting is frustrating because you can only place a maximum 10 coin stake during every game.

For me, though, the whole point of poker is missed by it being only a one-player version. You versus the computer as dealer. The computer doesn't generate other players and so you can't bluff. What good's poker when there aren't any opponents to out-psych?

Video Poker has more in common with those arcade machines where you guess the next card to be higher or lower.

It's not really poker but it's quite compulsive for all that ■

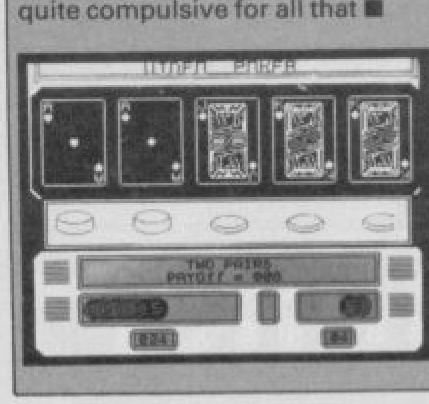
FACTS BOX

Plays a one-sided game — you versus the dealer. An expert system this is not, but at the price you can't lose

VIDEO POKER
Label: Mastertronic Entertainment USA
Price: £2.99
Memory: 48K

Reviewer: John Gilbert

★★★★☆



BUDGET £1.99 £2.99 REVIEW

VIDEO OLYMPICS

When **Video Olympics** came in for review, I groaned out loud. Here we go I thought, another visit to the electronic doctor will be required after looking through this game. I wasn't disappointed, because the final tally was two joysticks and one very pulled muscle in my forearm coupled with tennis wrist! If by this casualty list you have gathered that this is another stick wiggling, keyboard bashing, go-as-fast-as-you-can-before-times-runs-out, olympics game, you have gathered right.

This is a great Mastertronic cheapie, very similar to the old Ocean//Artic, one player, decathalon games of a couple of years back and gives you six events to compete in starting with (groan) the 100 metres dash, then on to a not so tiring long jump and javelin, followed by (groan, groan) 100 metres hurdles, hammer throwing and (gasp) swimming; all worked by simply how fast you can wiggle your joystick.

There is of course a gulf of difference between say the frills of Epyx's **Summer Games** series and **Video Olympics'**, so don't expect arcade quality graphics but, nevertheless, the look of the game is quite reasonable and the whole thing is immensely playable although, a word of warning, you have to qualify through each event before being allowed to progress to the next.

The only sound I could find was at the beginning of the game where a simple rendition of *Chariots of Fire* is played before the first race. But in all honesty it's not sound effects or fabulous graphics that give this game its appeal, it is simply that old adage that you always try to do better than last time.

I think **Video Olympics** has a lot going for it, it's unfussy, comical and most of all maddeningly frustrating for a small outlay. Just how much it's going to cost you in repairs is another matter though! ■

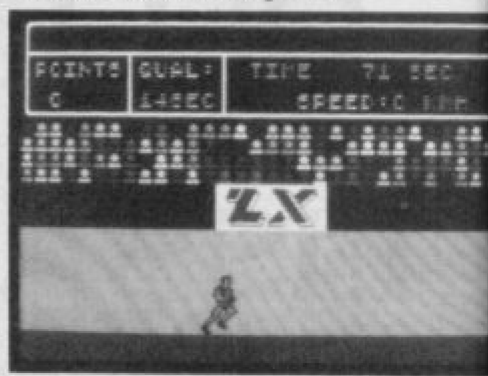
FACTS BOX

Smartly produced six-event sports game that works up a sweat. Great value for money. Daley on a budget

VIDEO OLYMPICS
Label: Mastertronic
Author: In house
Price: £1.99
Joystick: various
Memory: 48K/128K

Reviewer: John Gilbert

★★★★☆



SBUGETTI JUNCTION

Being a traffic cop is not all its cracked up to be. Endless streams of cars, lorries and motor cycles can soon reduce the best planned traffic flow system to an impenetratable snarl-up. There is plenty of scope for a number of interesting computer games based around this scenario.

Unfortunately, **Spugetti Junction** makes little use of this idea. This one player game from Bug-Byte simply places you in control of one junction. Using three keys, or a joystick, you control the traffic flow in all directions. The object of the game is to move as much traffic as possible in the shortest time.

If you get all the traffic through without crashing, or taking too long, you will move on to another junction.

The graphics are clear but unimpressive, though there is a useful blow-up insert of Louigi, the traffic cop.

What the game lacks is a sense of excitement, a build-up of pace and suspense.

This game may appeal to the very young, though I suspect that even they will lose interest before long, but it is unlikely to grab the attention of anyone else. In short, it's boring.

At £1.99 the program is not expensive, but I doubt if many will buy it ■

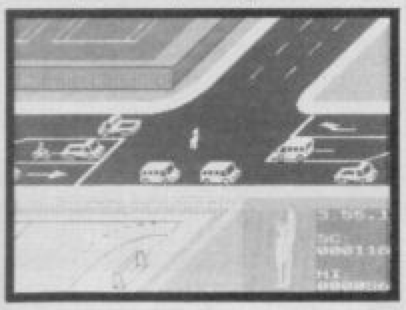
FACTS BOX

Simple traffic control game — suffers from terminal boredom. Needs a good deal more imagination — more everything

SBUGETTI JUNCTION
Label: Bug-Byte
Author: Muraya
Price: £1.99
Joystick: Kempston/Sinclair
Memory: 48K

Reviewer: Brendan Gore

★☆☆☆☆



OUTWORLD

I wouldn't make a very good King I've decided, too many decisions about too many things. What with feeding my loyal subjects and exporting my rotten wheat, there just doesn't seem enough time in the day to count the money it's all bringing in — its probably the reason that I'm never too successful at playing **Kingdoms**.

Outworld, by new mail-order only software house Durome, is a sort of interstellar **Kingdoms**, set on a distant planet, where you have to control a company that mines rocket fuel ore.

This sounded more the ticket I thought, forget that King nonsense and try being a big company boss for a change. I must admit I was quite impressed by **Outworld**. There are prenty of features to keep even the toughest would-be mogul busy and the game flows along quite nicely.

The scenario is this, having taken over this mining company, you have three years to make a fortune or get banished to some far off galazy (where you could train to become an **Elite** pilot — but that's another game).

The first decision is which of the three land areas do you mine in (one has very rich ore, but is very unstable — prone to earthquakes. Another has so-so ore, but is very safe etc). You pays your money and you takes your choice. Next you choose your labour force from three types of alien, the better the worker the more it costs in salary payments. This done, you may buy drilling equipment and here again are three choices ranging from bog standard pick axes to fully automated drilling machines.

Numerous other screens depict advertising investment (which increases the number of customers), industrial espionage (stealing from other companies), tax payments, loans and productivity. You start with two mines and 150 workers, and expansion is the name of the game but caution is a necessary evil and it will take quite a few months before you get really profiteering.

Durome have packed a fair amount into this game, and have tried hard to bring a fresh approach to an otherwise old subject and at a price which is to be commended. It doesn't have state of the art graphics, and some of the routines are a bit amateurish but, nevertheless if you're into mining games, you'll dig this one ■

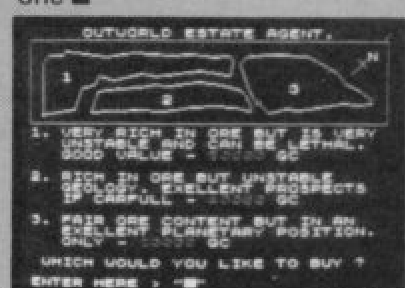
FACTS BOX

Involved management simulation that puts you in the hot seat running a mining company. Good value for money

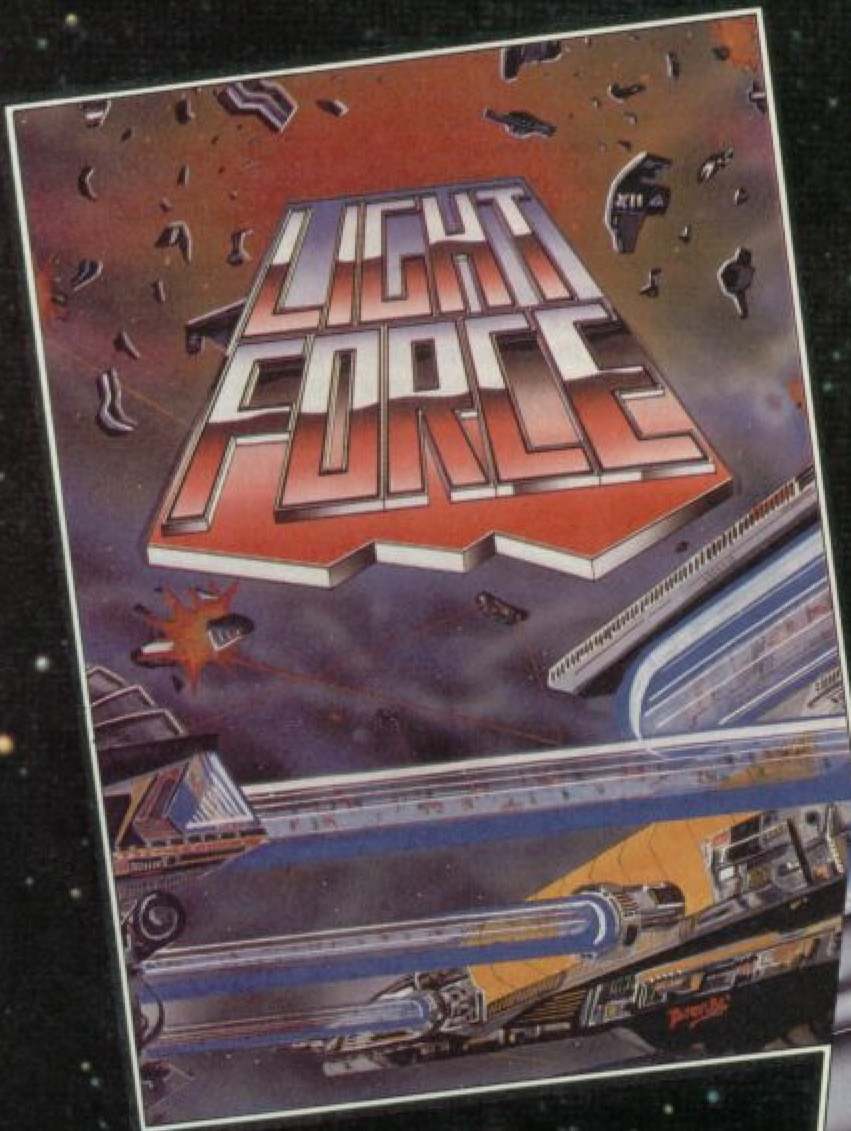
OUTWORLD
Label: Durome
Author: P. Davies
Price: £1.99
Memory: 48/128K

Reviewer: Andy Moss

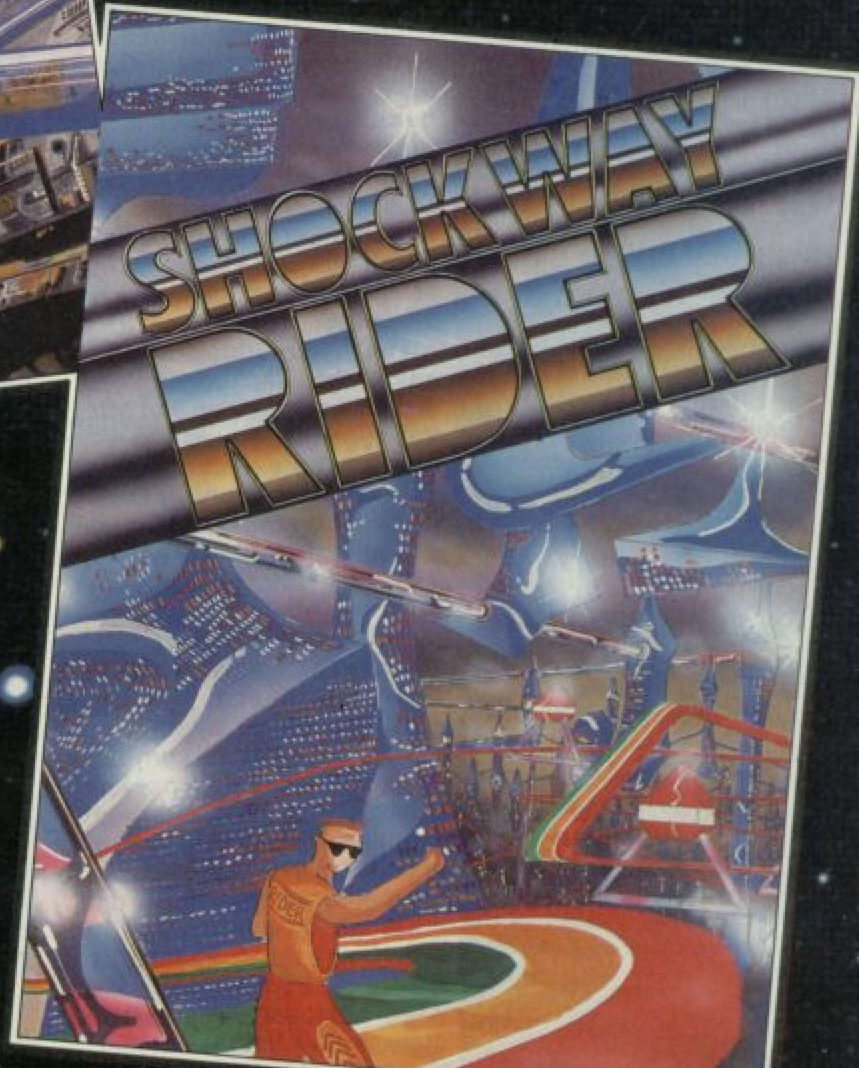
★★★☆☆



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Controlling the Beep from machine code

Sounding off with your Spectrum using machine code. Andrew Hewson explains

Clive Livesey of Poole raises a perennial topic. He writes: **I have learnt a great deal from the excellent book by Toni Baker *mastering machine code on your ZX spectrum* but I am at a loss as to how to make my spectrum beep in machine code. I don't require anything fancy like a continous tune — just a *Beep* when a key is pressed.**

This is one of those problems which just doesn't seem to go away. I get letters asking about the Spectrum *Beep* every month and it doesn't seem to matter how many times I write about it.

The Spectrum *Beep* command has two parameters which determine the duration and pitch, respectively, of the not to be produced. The duration is measured in seconds and the pitch is in semi-tones relative to middle C. Thus, the command

```
BEEP  0.5,1
```

causes the computer to play C charp (one semi-tone above middle C) for half a second.

Three separate Rom routines are used when a note is to be played. The first is the command interpreter which determines that it is the *Beep* command which is to be executed (as opposed to *Print* or *Dim* etc). It also places the two parameters in floating-point form on the calculator stack. It then passes control to the *Beep* command routine itself, located at address 03F8. This routine converts the duration and pitch parameters to two new numbers. The new parameters are passed in the DE and HL register pairs to a third routine located at 03B5 which drives the loudspeaker causing the correct note to be produced.

The third routine drives the loudspeaker by 'toggling' (ie, switching rapidly on and off) the low-voltage supply to loudspeaker's electromagnet. This causes the cone of the loudspeaker to vibrate thereby generating an audible sound. The two parameters passed to the routine control the total number of times that the 'toggling' takes place and the rate of repetition.

So, how do we relate the rate of repetition and the number of 'toggles' to the frequency and duration of the note required? To answer this question we need to know something about the mathematics of music and the language used to describe it. An octave is a 'natural' separation between two notes which most people can detect quite readily. It turns out that raising a not by an octave is equivalent to doubling the note's frequency. For example whilst the frequency of middle C is about 262 Hz the frequency of the note an octave higher (called upper C) is about 524 Hz. Similarly the frequency of the note an octave higher still is about 1048 Hz.1

If all the notes that were ever played were octaves of middle C music would be very boring and the average piano keyboard would have about seven notes. Hence, to add variety each octave is divided into twelve semi-tones. These semi-tones are evenly spaced in the logarithmic scale of frequency, ie, the difference of the logarithms of the frequency of adjacent pairs of semi-tones is the same. Each of these semi-tones has related octave notes above and below thus generating the seventy-odd notes on the piano keyboard.

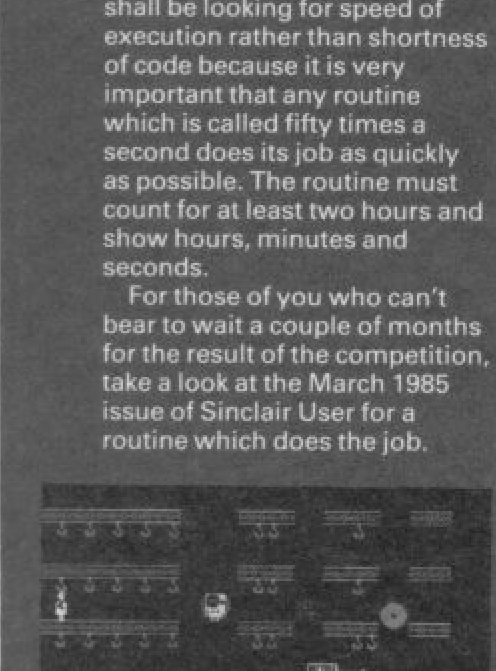
It would be possible to create all notes from a single reference frequency, stepping up or down by the required number of semi-tones by adding or subtracting the logarithmic increment the required number of times. Sinclair chose not to do this. Instead the frequencies of all twelve semitones in a single reference octave are stored in floating-point form in Rom at address 046E. Higher

Clocked!

The prize this month for the silliest letter goes to David Alderson of Blackpool who sent in a redecorated version of the June 86 *Sinclair User* front cover featuring my picture (how come I merit all this attention?) and complete with the odd joke or two (in fact very odd joke now I come to think of it). He went to all this trouble to emphasise his request for an interrupt-driven machine-code clock routine but just to show that I'm not taken in by his flattery I'm going to do two things.

First I'm sending him a copy of **Technician Ted** which features an interrupt driven clock. Second, I'm not writing a routine myself. Instead I'm going to offer a game as a prize to the reader who sends in the most efficient clock routine. I shall be looking for speed of execution rather than shortness of code because it is very important that any routine which is called fifty times a second does its job as quickly as possible. The routine must count for at least two hours and show hours, minutes and seconds.

For those of you who can't bear to wait a couple of months for the result of the competition, take a look at the March 1985 issue of Sinclair User for a routine which does the job.



Invisible background

Many professional games programs, writes Graham Blake of Bristol, **have characters which move over backgrounds without erasing them and leaving the background visible behind the character and inside the character's squre. How is this done?**

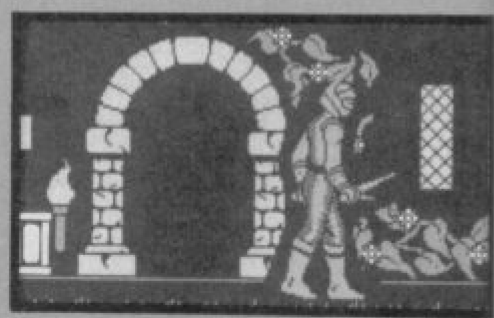
The simplest way of placing a character on the screen is to make you use of the *Xor* command. This is logical operation for mixing the contents of two bytes of memory which works as follows. Each of the corresponding eight bits of the two bytes to be *Xor* ed are inspected in turn. If neither bit is set then the result is not set, if one of the two bits is set then the result is set but if *both* bits are set then the result is not set. That sounds terribly complicated doesn't it? In truth it's not all that tricky once you get the hang of it Look at the Table 1 below:

Table 1: The *XOr* function

First bit	Second bit	Resulting bit
0	0	0
1	0	1
0	1	1
1	1	0

See how it works? If one or other of the bits is set to start with then the result is set but if they're both set then the result is not set. The instruction is called *XOr* as a shorthand for what is called, in logic thory, the function.

To use this for writing a character to the screen take the first byte from the screen memory and the second from your memory image of the character to be placed on the screen. Merge the two bytes using the *XOr* instruction and then write the result back to the screen. If you want to experiment quickly then use the Spectrum character set as the source of the characters to be written to the screen.



This system gives rise to the kind of transparent effects which Graham describes in his question. Unfortunately, it doesn't necessarily generate an effect wich is pleasing to the eye. Very often the result is a messy merging as a character moves across the screen. To see why imagine both the character and the background as being drawn sheets of transparent plastic. To construct a particular image you would first place your transparent background sheet on a black piece of paper. Then you would lay your transparent character sheet on top. The trouble is that only if the character consists of completely solid blocks of colour it will obscure the background totally. If the character has any gaps in it to show internal detail like the eyes and mouth on a face then the background will show through those gaps.

HEWSON HELPLINE

notes are obtained by doubling or quadrupling etc these frequencies, lower notes by halving or quartering etc.

The frequencies and the

Note	Frequency	Log frequency (to base ten)
Middle C	261.63	2.418
C sharp	277.18	2.443
D	293.66	2.468
D sharp	311.13	2.493
E	329.63	2.518
F	349.23	2.543
F sharp	369.99	2.568
G	392.00	2.593
G sharp	415.30	2.618
A	440.00	2.643
A sharp	466.16	2.669
B	493.88	2.694

Table 2. The semitone table used by the ZX Spectrum

names of the notes are listed in Table Z. The logarithm to base ten of each frequency is also listed in Table Z and it's clear that the difference in each adjacent pair of logarithms is about 0.025.

The *Beep* command routine uses this table to calculate the required frequency from the pitch parameter as follows:

- The required semitone is determined from the result of the calculation

SEMI-TONE = INT (PITCH) MOD 12

This gives a value in the range 0.0 to 11.99. The integer part of this number determines which semi-tone is selected. The frequency is then adjusted upwards using an approximate calculation to take account of any not-integer remainder.

- The required octave is determined from the calculation

OCTAVE = INT (PITCH/12)

The frequency obtained from the first part of the calculation is then doubled or halved the appropriate number of times. For example it is doubled once if *Octave* = 1, twice if *Octave* = 2, halved once if *Octave* = −1 etc.

To complete the conversion of the first parameter the frequency obtained (measured in Hz is multiplied by the duration parameter (in seconds to give the total number of times that the loudspeaker supply line must be toggled.

The result is passed to the *Beep* routine at 03B5 in the ED register pair.

The second parameter passed to the *Beep* routine controls the interval of time between each toggling of the loudspeaker line. This interval of time isn't measured in seconds but in the number 'T-states' is the period of time that the Z80 microprocessor takes to execute the fastest instruction. In the ZX Spectrum there are 3.5 million T-)states per second.)

The steps in the calculation are as follows:

- Divide 3.5 million by the frequency of the required note
- Divide the result by eight
- Subtract 30.125 to take account of overheads at the beginning and the end of the delay loop

The result is passed to the *Beep* routine in the HL register pair.



XOring is by far the easiest and quickest method of obtaining moving graphics passing across a background. To obtain an appearance which avoids the messing merging effects requires a lot more effort. In terms of the analogy of the transparent plastic sheets it is necessary to cut out a shadow on the background sheet where the character is to be laid. Naturally, working out the shape of the shadow and cutting the shape out are, in computer terms, slow and tricky jobs.

Occasionally someone comes up with a clever trick which avoids both the work and the nasty effects. Mike Singleton has recently devised such a clever trick with his **Dark Sceptre** release. The main characters in this game is huge — about twelve characters high — and they move across a very colourful background. Moving such a large character around on the Spectrum screen would normally be a very slow and cumbersome job because a large character requires a large background cut-out. Mike has brilliantly circumvented the problem by surrounding his huge character with a black shadow, roughly one character square wide He thereby avoids most of the 'cutting out' problems and, perhaps surprisingly, the eye readily accepts the visual trick. There is no feeling that the shadow is unnatural. If anything it adds atmosphere to the effect created.

If you're interested in graphics, take my advice and have a look at **Sceptre**. If anyone has got detailed comments on it I would be interested to hear from them.

Fair's fair?

Congrats to Mike Hyams of Edgware who beat Arthur Grimmer of Alton and Chris Gornall of Preston to the postbox with a copy of the centrefold of myself in the first issue of Sinclair User. He wins a copy of Southern Belle. I hope you are chuffed (groan!) Mike. Since you ask, I was behind our stand at the very first ZX Microfair in 1981 and, as I remember, it was like the first day of the Christmas sales with people piling over one another to see what was on offer.

As I write the *Personal Computer World* Show has just finished. There was the same enthusiasm in the air as there was in 1981 but the material on offer, both hardware and software, is infinitely better. I am bemused, however, by the comment of one visitor to our stand. He said that I was better to look at in the flesh than the current cartoon in Sinclair User would lead you to believe. My foot however did not apparently live up to his expectations. Some people are strange aren't they?

Plotting and drawing

David Alton of Hartlpool wants to know how to use the *Plot, Draw* and *Circle* commands in machine code. Take a look at the routines in Table 3. They tell you all you need to know.

For those without an assembler the routines can be loaded in using the decimal loader listed in Table 4.

Table 4. A simple decimal loader for *Poke*ing decimal numbers into the Spectrum at address 32768 onwards. To halt the program enter *Stop (Symbol Shift* A)

```
10  FOR I = 32768 TO 33000
20  INPUT J
30  POKE I , J
40  PRINT I , J
50  NEXT I
```

Table 3 Routines to call the *Plot, Draw* and *Circle* commands from machine code.

Decimal	Hex	Assembler	Notes
		org 32768	Start at 32768
		Plot	
1,x,y	01 XX YY	1d bc, yx	*x* and *y* into *bc*
195,229,34	C3 E5 22	jp 8933	jump to *Plot* and return
		Draw	
1,x,y	O1 XX YY	1d bc,yx	*x* and *y* into *bc*
17,h,v	11 HH VV	1d de, vh	*v* and *h* correspond to co-ords. 01 or FF (pos/neg) return
205,186,36	CD BA 24	call 9402	
24.18	18 12	jr End	
		Circle	
62,x	3EXX	1d a,x	*x* into *a*
205,40,45	Cd 28 2D	call 11560	Stack *x* onto calc. stack
62,y	3E YY	1d a,y	
205,40,45	CD 28 2D	call 11560	As above for *y*
62,r	3E RR	1d a,r	
205,40,45	CD 28 2D	call 11560	As above for radius
205,45,35	CD 2D 23	call 9005	draw *Circle*
		End	
33,88,39	21,58,27	Id hl,10072	h'l' must contain 10072 before returning to Basic
217	D9	exx	
201	C9	ret	Return

Notes:

To use the routines above on their own, the co-ordinates and the other relevant data must be poked into the appropiate addresses.

The DRAW and CIRCLE routines must have the END routine present if they are to return to BASIC, or the computer will crash with an error message.

TASWORD 128

TASWORD THREE

TASWORD PLUS TWO



Buy a Tasword for your Spectrum and get a word processing program that is:

Easy to use. Just load the program and type in your text. If you do need help then it's there on the Tasword screen.

Packed full of features. The new generation of Taswords set a new standard in word processing on the Spectrum computers.

Designed for YOUR computer. There is a Tasword for each Spectrum computer. Each Tasword is designed to make the best use of the keyboard and memory on your Spectrum.

ZX SPECTRUM
TASWORD TWO
THE WORD PROCESSOR

TASWORD TWO for the ZX 48K Spectrum cassette £13.90 microdrive cartridge £15.40

"Without doubt the best utility I have reviewed for the Spectrum"
HOME COMPUTING WEEKLY APRIL 1984

"If you have been looking for a word processor, then look no further"
CRASH JUNE 1984

With 64 characters per line on the screen and a host of useful features TASWORD TWO is the ideal cassette based word processing package for the Spectrum owner.

TASPRINT
THE STYLE WRITER

TASPRINT for the ZX 48K Spectrum cassette £9.90 microdrive cartridge £11.40

A must for dot matrix printer owners! Print your program output and listings in a choice of five impressive print styles. TASPRINT utilises the graphics capabilities of dot matrix printers to form, with a double pass of the printhead, output in a range of five fonts varying from the futuristic Data-Run to the hand writing simulation of Palace Script. A TASPRINT gives your output originality and style! The TASPRINT fonts are shown to the right together with a list of compatible printers.

TASCOPY
THE SCREEN COPIER

TASCOPY for the ZX Spectrum with Interface 1 cassette £9.90 microdrive cartridge £11.40

The Spectrum TASCOPY is for use with the RS232 output on ZX Interface 1. It produces both monochrome (in a choice of two sizes) and large copies in which the different screen colours are printed as different shades. With TASCOPY you can keep a permanent and impressive record of your screen pictures and diagrams. A list of printers supported by TASCOPY is given to the left.

TAS-DIARY
THE ELECTRONIC DIARY

TAS-DIARY for the ZX 48K Spectrum and microdrives. Cassette £9.90

Keep an electronic day-to-day diary on microdrive! TAS-DIARY includes a clock, calendar, and a separate screen display for every day of the year. Invaluable for reminders, appointments, and for keeping a record of your day. The data for each month is stored as a separate microdrive file so that your data for a year is only constrained by the microdrive capacity. TAS-DIARY will work for this year, next year, and every year up to 2100! Supplied on cassette for automatic transfer to microdrive.

TASMAN PRINTER
INTERFACE

TASPRINT PRINTER INTERFACE for the ZX Spectrum £29.90
RS232 Cable for ZX Interface 1 £14.50

Plug into your Spectrum and drive any printer fitted with the Centronics standard parallel interface. Supplied complete with ribbon cable and driving software. The user changeable interface software makes it easy to send control codes to your printer using the method so successfully pioneered with TASWORD TWO. The cassette contains fast machine code high resolution full width SCREEN COPY SOFTWARE for Epson, Mannesmann Tally, Shinwa, Star, Tandy Colour Graphic (in colour!) printers. TASCOPY shaded screen copy software for this interface (value £9.90) is INCLUDED in this package.

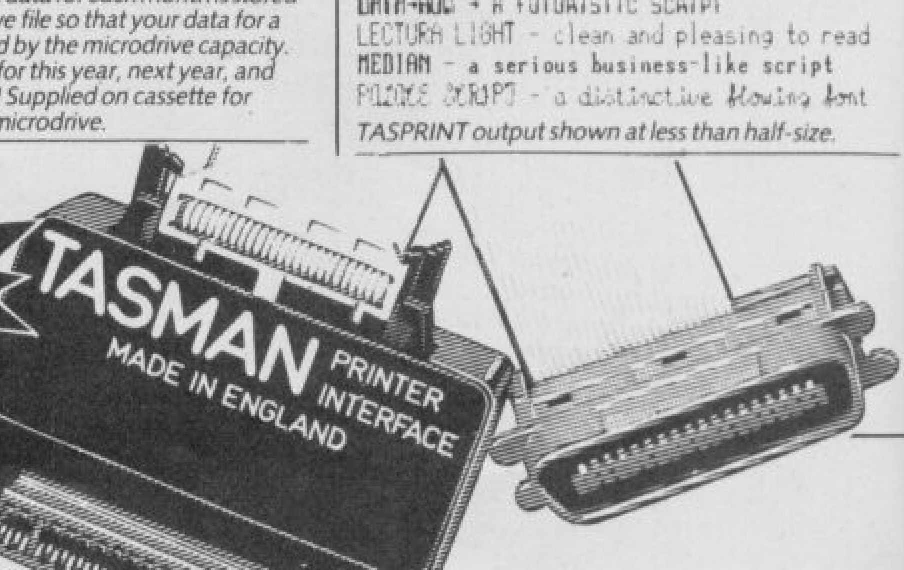
The TASCOPIES and TASPRINTS drive all Epson compatible eight pin dot-matrix printers e.g.

		BROTHER M1009
AMSTRAD DMP 2000	NEC PC 8023B-N	BROTHER HR5
EPSON FX-80	MANNESMANN TALLY MT-80	SHINWA CP-80
EPSON RX-80	STAR DMP 501/515/5610	DATAC PANTHER
EPSON MX-80 TYPE III	COSMOS-80	DATAC PANTHER II

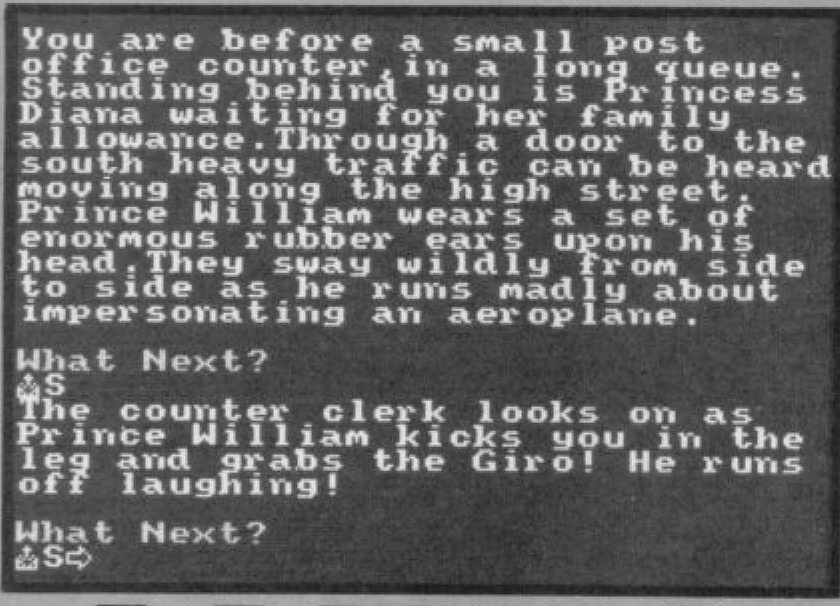
COMPACTA - bold and heavy, good for emphasis
DATA-RUN - A FUTURISTIC SCRIPT
LECTURA LIGHT - clean and pleasing to read
MEDIAN - a serious business-like script
PALACE SCRIPT - a distinctive flowing font

TASPRINT output shown at less than half-size.

Compatible with Spectrum, Spectrum+, and 128K Spectrum







◄ **The opening of the game ● Getting the Giro back won't be easy ● Go out to the high street**

H.R.H.

H.R.H. has been causing a big fuss in the papers — the *Sun* mainly. No dungeons and dragons, goblins and trolls to be found here.

H.R.H. from 8th Day has touched a nerve in some less liberally minded folk, mixing as it does, the Royal Family and the dole queue in a classic bureaucratic foul up over DHSS benefits.

Sitting in your London bedsit, you rip open your DHSS letter and discover a £250,000 Giro cheque intended for the Queen. This comes as something of a surprise. Presumably the Queen will be even more surprised, especially if she received your Giro in place of her own.

You start the game standing in a Post Office queue, Princess Di standing behind you. Prince William, wearing an enormous pair of rubber ears, is also in the Post Office. A clerk stands behind the counter, though you have no way of knowing this from the description.

Any attempt to give the Queen's Giro to the clerk, or to leave the Post Office with it still in your possession, will trigger Prince William into action. He'll grab the cheque and bite you in the leg. You begin to feel he doesn't like you.

The rest of the game concerns your attempts to retrieve the missing Giro, cash it and give the money to the Queen. Which is easier said than done.

FACTS BOX

An opportunity to create an inventive satire, missed. It's just not funny enough

☆	H.R.H.
☆	Label: 8th Day
☆	Price: £6.95
★	Memory: 48K/128K
★	Reviewer: Brendan Gore

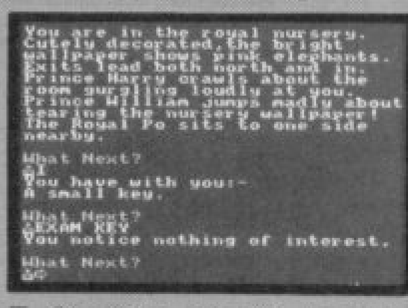
You leave the Post Office, your leg presumably still throbbing, and are confronted by a busy main road. Fortunately, there is a pedestrian crossing. Failure to press the button could be fatal — London traffic doesn't like stopping at the best of times.

On the other side of the pedestrian crossing there is a telephone box. Surprise, surprise . . . the telephone is ringing. Being naturally curious, you answer the telephone. An unidentified voice on the other end gives you an urgent message for Prince Andrew. The logic may seem a little strained here, but stranger things appear in *The Sun*.

The Prince is to be found in a local nightspot, just past the *Dancing Kebab*. He appears slightly distraught, but is pleased to receive your message and offers you some champagne. And so it goes on.

Other members of the royal family will be found dotted around the adventure. The Queen Mother and corgies, are at Clarence House. Prince Charles and the Queen are to be found in Buckingham Palace. Mrs Thatcher, Princess Margaret, Princess Michael, the Archbishop of Canterbury and assorted other characters also pop up in unexpected places.

The corgies play a larger role



▼ **Occasional graphics of some horrible sights**



in the game than you might first suspect. Carrying a Corgi at one point will provide a much-needed proof of identity.

The adventure only accepts one line of text as an input though, so you may have to abbreviate some words in order to get your message across. Also, use *Tell* in place of *Say* or *Speak*.

In its style and content **H.R.H.** owes much to the earlier **Dennis Through the Drinking Glass** or Melbourne House's effort, **Hampstead**. The trouble is it is neither as inventive as **Denis**. Nor is it as technically well executed as **Hampstead**.

If the plot of **H.R.H.** sounds trite and a bit daft, don't worry — it *is* trite and a bit daft. The biggest problem is not the subject matter, nor questions of taste. It is a distinct lack of humour. Maybe it's me but **H.R.H.** just isn't funny.

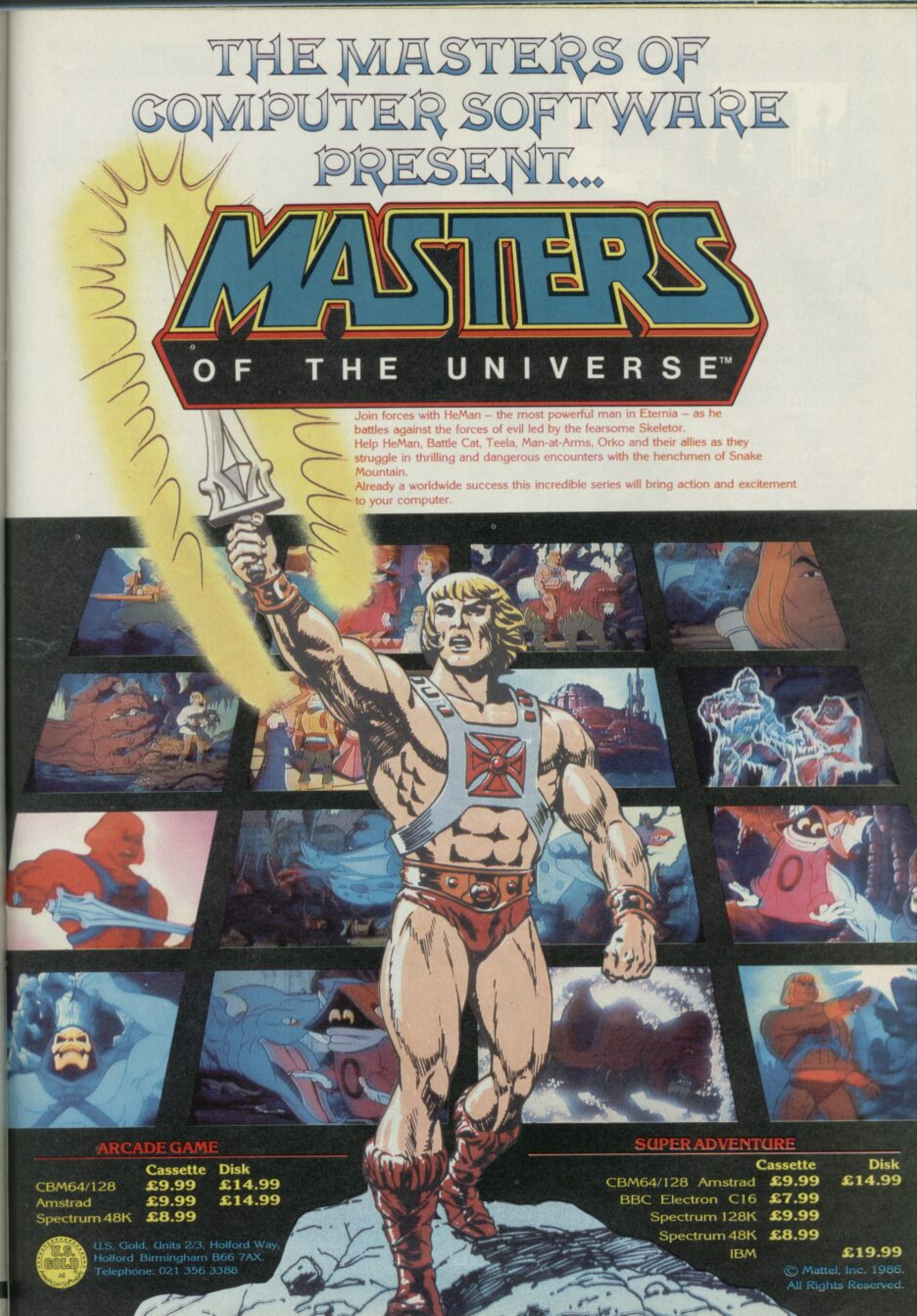
A satirical adventure of this sort relies heavily on the effectiveness of the internal jokes for its success. **The Boggit** is an example of a sustained and funny adventure which pokes fun at its august predecessor. TV series' like *Spitting Image* and *Not The Nine O'Clock News* have shown that you can be cruelly funny and get away with it, but the jokes have to be good enough.

I admit to a droll smile when Prince William bit me on the leg, but it was a case of too little, too late. I simply lost any interest in what happened next. The puzzles in the game don't require any leaps of inspiration, just a plodding routine of 'try it and see'.

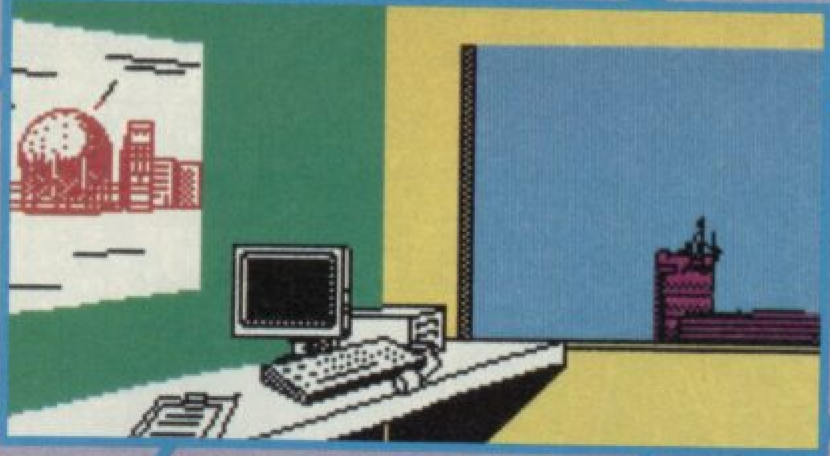
Here was an opportunity for some biting satire on unemployment and the royal family.

And it's an opportunity that's been largely missed ■




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AFTER SHOCK

After Shock is Interceptor's latest and confirms the firm's position at the top of the adventure tree.

After the mythical **Karn** triology and the **Forest at World's End, After Shock** is a return to reality and the troubles of today.

So what's going on. You kick off in the streets of a city in a state of advanced demolition. A nuclear test has triggered a huge earthquake and a large part of the city has been either reduced to rubble or damaged beyond repair.

You also know that the nuclear power station on the edge of town is about to make like a mole and head for China. Unless you want to be part of the meltdown you'd better do something — and quick.

The first graphic in the game is, to my mind, one of the best. It shows a modern office, with just what you'd expect to find in one. Yes, it's a PC (probably not an Amstrad though). On the wall is a map of the nuclear power plant, and out of the window you can survey the wreckage of downtown wherever-you-are.

Not every location has an associated graphic, but that hardly matters as the location descriptions are pretty full. They are also highly atmospheric. In fact, they're so good that the game would be excellent without the graphics — with them it's even better. They're by Terry Greer whose adventure graphics are legendary.



▲ In the alley at the back of your office ● Begin your exploration of the city ● Why not go where Daddy will take you tomorrow (cryptic clue!)

First you have to escape from your office building. This isn't easy. Speaking as someone who has spent some time living on the fault-line in California, if you didn't already know from watching *Superman* and *View to a Kill*, there are certain things you are advised not to do. Well, you're going to have to do at least one of them, and yes, you can expect to get shafted.

There are at least two items you have to take from your office. One you must have if you hope to leave the building. The other, which doesn't have any wires attached, may save you from a nasty death later. It could also be the cause of one. So watch out.

How do I know this? Because Interceptor, wise in the ways of reviewers who only have limited time and even more limited grey matter to review adventures, have provided a hint sheet. Let's face it, without it I probably wouldn't have made it off the floor I started on. Even with it I got stuck halfway through!

So if I tell you this is no easy game to solve, you'd better believe me.

And, not content with filling the game with some pretty ferocious problems, the author David Banner put a time limit on it. Remember? Yup, that's right: the nuclear reactor. And you're the only trained fission engineer around who may be able to save the situation. Take too long, and wham — you're Chicken Kiev.

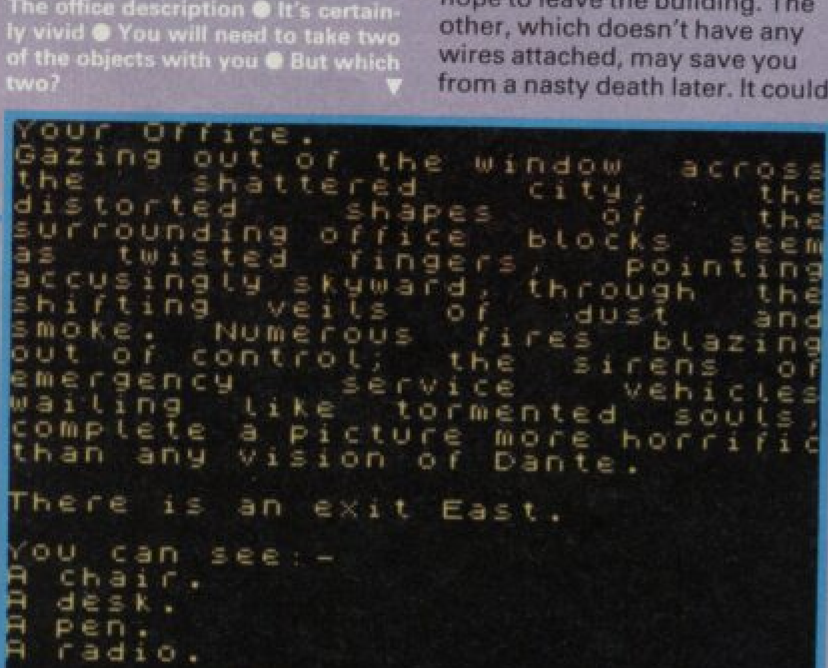
But Interceptor's game writers are at least fair — most of the time. If you read the descriptions closely enough, there's usually a clue which can help you to avoid any sticky ends. Sometimes, though, you face instant death just by entering certain locations, unless you are carrying the wrong object or objects.

The parser — the code which interprets your input — is good, and can handle a wide selection of nouns and verbs. In certain places though, you do need to find just the right combination to solve a particular problem and sometimes, the necessary words are pretty obscure. You can usually work out what's needed, though.

I do have one major complaint, though. This is an adventure game — and it doesn't understand the word *Get*! You are only allowed to *Take*.

An adventure game without *Get* is like the Mona Lisa without a smile. It's just not on ■

The office description ● It's certainly vivid ● You will need to take two of the objects with you ● But which two? ▼



FACTS BOX

Excellent adventuring for the dedicated, combining great graphics from a master of his art with challenging problems

★★★★★

AFTER SHOCK

Label: Interceptor

Author: David Banner

Price: £9.99

Memory: 48K/128K

Reviewer: Gary Rook







GORDO'S HELPLINE

It's enough to drive a man to drink, you know. Not only am I accused of political bias by aspiring candidates for public office like Gabby of Foleshill — and it's only fair to point out here that my role as El Presidente of the Militant and Utterly Secret Guild of Socially Conscious Adventurers is purely an honorary title which earns me a paltry pension of five barrels of wine a year — but I'm also slagged off something rotten for getting things wrong about the infamous trapdoor problem in **Quest**. Suffice to say, in grovelling and abject buck-passing, that my information came from a very well-placed source within the confines of Chateau Hewson itself. Anyway, my suggestion to *Knock* really — or probably — applies to the library door in **Fantasia Diamond**. After a lengthy consultation with Grand Master Hewson in person I can now reveal, with as much assurance as I can still muster, that the solution to the trapdoor problem is: leave it alone, don't go anywhere near it, it's fatal. Trap it says and trap it is, a death-trap. Such is life, chums — and before anyone writes in to moan, let me tell you that this was checked with The Author Himself as he sipped a Pina Colada on some sun-drenched beach near Stockport. Nuff said.

Mindstone

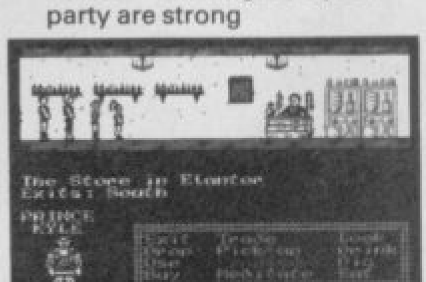
Correspondence flows apace and we kick off with a swift solution by Dave Williams from Merseyside

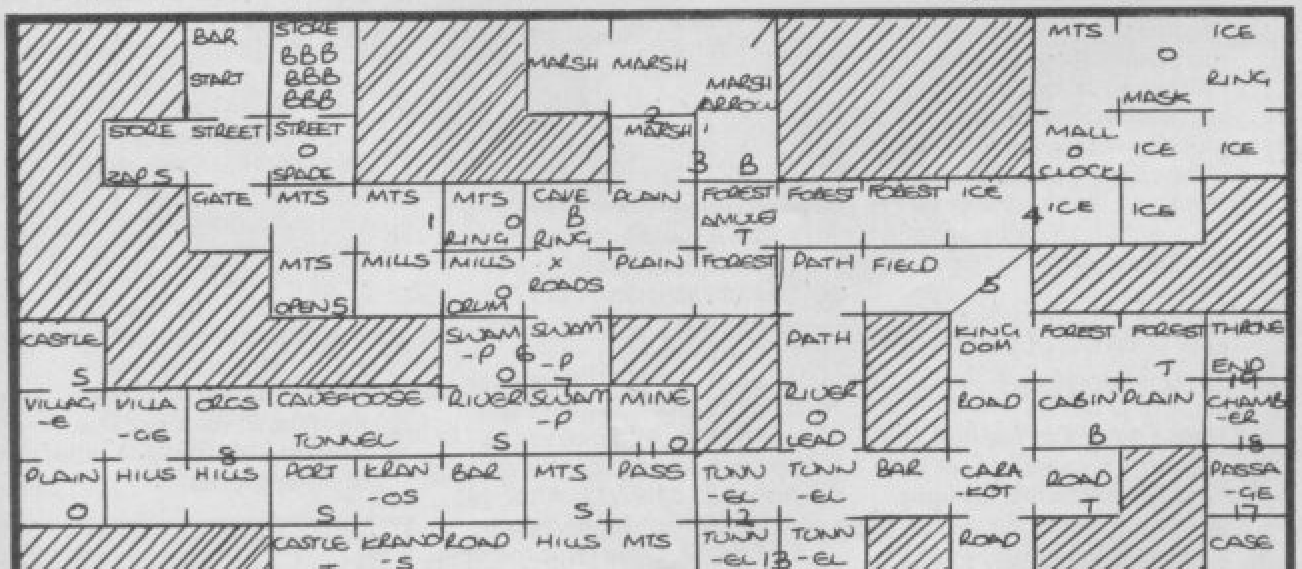
He's managed to complete the game on August 7.

Anyway, here's a map.

Some basic tips have also been supplied by David Deacon from Herts. David also has completed the game, doing so on August 10. Not quite as good as the other Dave, but still very quick. Here the are tips:

- Buy the Zap spell from the mystic store in Elantor
- Pick up all the lead you can find as this can be turned into gold with the help of the alchemy spell in the Orc castle
- The fireball spell will melt the ice wall
- Buy the Royal Orb off the pixie in the dark plain
- The elf trader in the front plain will trade a tiger amulet for the Royal Orb
- Follow the caver into Kranos
- Drink at the bar in Kranos (as many drinks as you wish)
- The sorceror in Kranos will trade his talisman for the tiger amulet
- Use the talisman to open the doomgates
- Head towards Nemesar's Palace — making sure your party are strong





Key to the Mindstone map
O — Object
B — Buy
T — Trade
S — Spell
L — Locked, blocked or guarded
1 — Open
2 — Zap
3 — Zap
4 — Fireball
5 — Zap
6 — Zap
7 — Zap
8 — Zap
9 — Thieves' toolkit
10 — Talisman
11 — Zap
12 — Torch
13 — Torch
14 — Gold
15 — Zap
16 — One Way
17 — Go and fight
18 — Destroy
19 — Fight

88



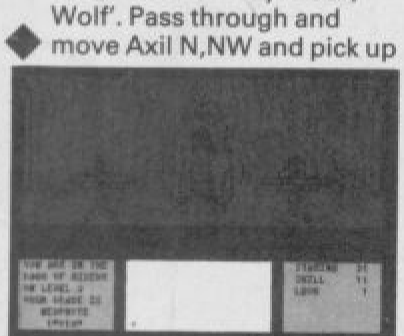
GORDO'S HELPLINE

Heavy on the Magick

from Gargoyle is still a hot property. Ben Clay from Boggitish Mole End, Scothern, Lincoln says:

"At four minutes past five on August 8 I completed Gargoyle's excellent graphic adventure. I left the dungeons beneath Collodon's Pile through the door in Pilefoot. Am I the first to do so? (No, but never mind *(G G)*

"Here's the solution. First pick up the grimoire on the start screen then move Axil E, N, NW. Now say 'Door, Wolf'. Pass through and move Axil N,NW and pick up



the sword. Go E,E, S, SE and drop the sword. Here invoke Astarot from a safe distance and, when he apears, say 'Astarot, Pilefoot'. Go W, and when you enter the next room say 'Door, Eleven'.Move N to get the finishing message which reads 'Well done, Axil the Very Able. You have made it to one of the exits.' "

It's not very often that we get *Pokes* in this cobwebby corner of the mag but **HOTM** is perfect for that sort of high-tech stuff. James Baldack of Waterbeach is the originator.

"Enter this program and input the Stamina, Luck ratings etc, to your liking but don't use a number greater than that in the brackets or the game will crash. The message 'Start tape, then press a key will appear. Put in a blank tape, then save your ratings on to tape as a version of Axil. This version is loaded using Version A.

When you load it into the main game the computer will say 'Abandoned'. Take no notice of the message as it doesn't mean it!

```
5 DIM B$ (5,2)
10 FOR T=0 TO 41:READ
   A:POKE 45032 + T,A:NEXT
   T
20 POKE 45074, 255:POKE
   45101,224: POKE 45102,224
30 INPUT "STAMINA
   (1-80)";B$(1)
40 INPUT "SKILL (1-80)";B$(2)
50 INPUT "LUCK (1-80);"B$(3)
60 INPUT "MAGIC LEVEL
   (1-9)";B$(4)
70 INPUT "EXPERIENCE
   (1-99)";B$(5)
80 FOR T=1 TO 5: IF B$
   (T,2)=" "THEN LET B$
   (T)="O"+B$(T)
85 POKE 45074+T,FN X (B$(T)
   )D:NEXT T
90 PRINT "Start tape, then
   press a key."
100 PAUSE 0:RANDOMIZE USR
   45032:PAUSE 30:
   RANDOMIZE USR 45044
105 DEF FN X (AS)=16*VAL
   (A$(1))+VAL(A$(2))
110 DATA 221,33,1,176,17,17,0,
   175,205,194,4,201
120 DATA 221,33,18,176,17,29,
   0,62,255,205,194,4,201
130 DATA 3,65,88,73,76,32,65,
   32,32,32,32,0,0,0,0,0,0
```

I hope all this is adequately transcribed — my only doubt is about the O in Line 80. Should it be 0?

Finally, in answer to Wong Mun Keong of Petaling Jaya, Malaysia, who asks what's the password to enter the door whose guardians say 'To enter is madness', C. Walker of Cumbernauld offers this list of passwords. "Here are all the passwords and a few tips. 'Cry and enter' — Wolf. 'To enter is madness' — Lunacy. 'The word is no word' — Silence. 'Seek fire bird to enter' — Iaza. 'The great sign I in free' — Soronoros. First exit,' an eye for an eye to enter paradise' — Long. Second exit, 'say a number of magick words' — Eleven. For the third exit you need to be Philosophus. Invoke Astarot and say 'Asmodee door' to him. Don't let your skill get above 63 or your luck above 96 or you won't be able to kill anything. You'll need the flask so you can cross the chasm.

He also wants to know how to kill the trolls in

The Boggit.

Shall I help? Oh, all right, the answer's an anagram of XLU — it's a Latin word for light or soap powder, depending on your intellectual standpoint (and I'm not saying what mine is).

Reaching for his custom-built rug, R. Calver of Norwich claims to have torn out all his hair: "What's going on? Several months ago I bought

Mindshadow

and, not being the adventurous type, I was surprised to find myself doing well. I had a pile of goodies and a map to get through the swamp. Follow the arrows, said Condor so I went up to the hut and began to follow the directions. It's impossible — whenever I try to follow the map I either end up in the swamp or blocked from moving. Help!"

The cavalry arives from Weston-super-Mare in the form of Peter Arnold whose complete solution lies before me.

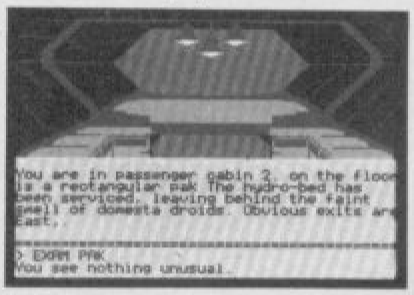
"From the cliff go W and N. Now travel off N,E,N,N,E,E,S,S,E. Now take the bottle of rum and head back W, N,N,W,W,S,S,W,S,S to arrive at the hut. All you need do now is bang the rock against the steel to start a rescue fire." Well done Pete, and thanks for the solution.



Let's get off into space now and warp out to find the distant

Rebel Planet

where Matthew Wodhams of Folkestone is getting very expletive deleted over "how to get over the base fence and how to refuel the damned jetpack!"



The base fence is one location away from Tundra Station. You won't get through without first*6* and *19* it. However to do this you must*15,3,20,7*. The jet pack from the lite-kube isn't so easy. First of all make sure you're wearing the thing! Now*9,22,11,27,17*. After this exploit*5,11,3,18* and then *5,11,30,13*. Dave Groome of Finsbury Park has been landing himself in trouble with the Arcadian officers. How, he pleads, can he sort the problem out? Try being an honest citizen and*21,29* — then just do what they ask.



Quickly on to a letter from an old companion, Thorne the Slayer, of 28 Berry Hill Lane, Mansfield, Notts, with some preliminary news on

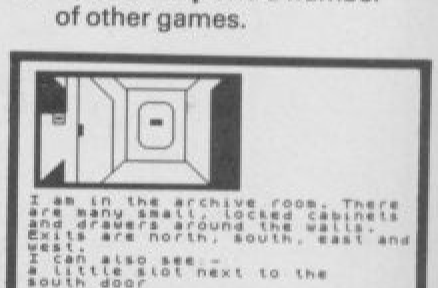
Hunchback and Marie Celeste

"I bought **Hunchback the Adventure** before I read the reviews — I'm sorry I did as I finished, nearly, on the day I bought it.

It was a bit disappointing — the problems were really just 'Drop X' etc, and not very taxing. In Part 1 drop all the books in the Bishop's room and wait — a hole will appear in the floor. Take the candle, light the lantern and go down. Part2: Drop the severed head by the headless body. You then need the key found in one of the rooms to unlock the door. Part 3: I didn't get round to finishing but you must drop nine objects in the cauldron to gain a password to pass the magic door. I've found only eight so far but you'll need the net to kill the bat which is one of the ingredients.

"In **Marie Celeste** you must beam down from the ship to find the pirates — this can't be done without the communicator. Go to the teleport room and then in. Type 'Beam'. Now take the bronze token and go to the canyon where you should press the button on the keypad to go in. Go to the door, examine it. Now look through the window and you'll see the pirates. Swap the token for the sabre."

Drop the Slayer a line if you want help with **Helm, Kentilla, Sinbad and the Golden Ship** and a number of other games.





GORDO'S HELPLINE

A Few Quickies

- MESSAGE FROM ANDROMEDA: Jim Kelly of Canterbury can't get out of the Mirrored Room except by the direct exits — though he's noticed that there's a panel with a square plate beside it. To find another exit *37,3,25* at the plate to get past the panel.
- CLASSIC ADVENTURE: Laurence Creighton of Sea Point, South Africa wants to open the giant clam. Just *36,23*.
- INFERNO: Jerry Holt of Belfast has reached the Very Centre of Inner Hell (poor bloke) and has met Titan. Regrettably Titan won't let him through. First give Virgil *3,24* and *34* — found in the bottle early on in the game. Now tell Virgil to *31,34*. Finally, *28* until Virgil holds up the *24* and you'll be let through. The *24* is found in the 8th Circle but you'll probably have to *35* someone before getting your hands on it!

TWIN KINGDON VALLEY: Duncan Idaho of Tleilax wants to kill the witch in the tower. Simply give her the *32,26*.

PROJECT X — MICROMAN: Derek Keyte (thanks for the map of **Mafia Contract 2**) can't turn the window handle twice after climbing the seat-belt. Do it this way — examine the car, climb the seatbelt and then wind handle. Now just jump out. . .

QUEST FOR THE HOLY GRAIL: To satisfy the large number who still can't get past the knight who says 'Nic', give him the Pink Shrubbery from the Kitchen. Don't do this whilst carrying the Holy Hand Grenade. Doesn't anyone buy the back issues? And for Mark James — wear the Jester's Hat of Invisibility to slip past Eugene the Peasant.

HAMPSTEAD: Julian Lewis of York is doing quite well but can't buy a business suit at the tailors'. He'll need a credit card for this and will have to backtrack to find it under a *38* on the *33*.

Information exchange

- I'm full of gratitude to John Barnsley of 32 Merrivale Road, Stafford, ST17 9EB for his complete solution and map to the vast and excellent game **Very Big Cave Adventure**. He also gives a list of nearly sixty games which he can help with and tells me that he runs an 'Adventurescue' service. Write for details — sae, enclosed, of course, and mention the games you need help with. John says he'll always try to help and will enlist the aid of other adventuring friends if he doesn't know a particular answer.
- E Benett of 42a Northcote Road, London SW11 1NZ can provide solutions at 40p each to **Eureka, Robin of Sherwood** and **The Hobbit**. I assume it's 40p for each part of **Eureka** so write to check it out.
- Lee Hodgson, 54 Church Street, Tewkesbury, Glos GL20 5RZ says he has solutions at 50p each to sixty adventures. He'll supply a full list for an sae. He'd also like to share ideas with programmers on imaginative adventure creation.
- Stuck in **Never Ending Story, Bored** or **The Hobbit?** Send 50p to cover p & p and copying to G Burtenshaw, 12 Talbot close, Shifnal, Salop. TF11 8SG.

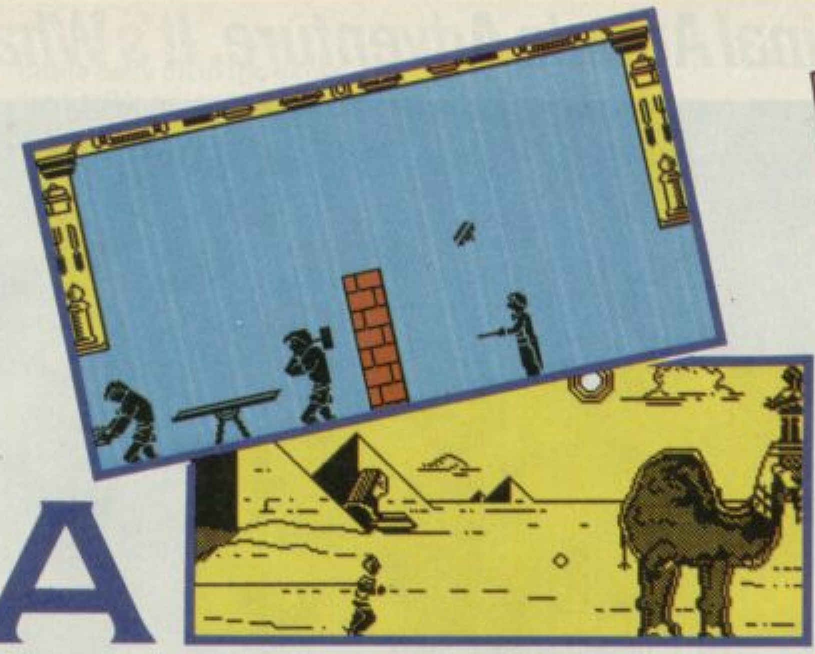
I get a number of leters from adventurers who assume that when I list offers of help like this I can act as an intermediary. As a result they ask me to send them the solutions and lists offered in this section. Alas, no! If you need help write direct to these folk — that's what the addresses are there for! Remember too that I can't guarantee the quality or speed of replies — though most helpers take the business seriously. Anyway, safe journeying. Farewell 'til next moon ■

Gordo 'Ché Guano' Greatbelly

Greatbelly Clue Matrix Thing

1:NORTH 2:EYES 3:THE
4:CATCH 5:GO 6:DISABLING
7:FIRST 8:CLOSE 9:PULL
10:BARK 11:TO 12:CRAWL
13:BUILDING 14:NET 15:MEET
16:PEEL 17:RIVER 18:CAVE
19:CUTTING 20:PROFESSOR
21:PAY 22:JOYSTICK
23:TRIDENT 24:TALISMAN
25:ROD 26:DAGGER 27:CROSS
28:WAIT 29:TAXES 30:SMALL
31:READ 32:SILVER 33:HEATH
34:PAPER 35:BITE 36:USE
37:POINT 38:BENCH

STRATEGY SIMULATION REVIEW



IT'S A KNOCKOUT

FACTS BOX

Six games in one. Five of them absolutely dreadful. One of them not too bad. Therefore I doubt if the whole thing's worth it

IT'S A KNOCKOUT
Label: Ocean
Author: in House
Price: £7.95
Memory: 48K/128K
Joystick: Kempston
Reviewer: Graham Taylor

★★☆☆☆

It's a Knockout. Now there was a TV program! How I remember Eddie Waring's incisive wit and Stuart Hall's infexious laughter.

Now, according to dark rumours too horrible to countenance, the whole thing is to return.

Ocean has done a computer version that leaves me speechless.

It recaptures something of the original flavour of the TV programme in being, foolish, rambling, ludicrous and amateurish although it brings in the whacky new feature of attribute clash to make things even more kooky.

There are several games in **It's a Knockout**, all of them silly, most of them quickly tedious.

You pick a country and play through the events in authentic **It's a Knockout** style. This means there are a number of games played 'at once' and a continuing game 'the marathon' played by each country between the usual games. I decided to be Belgium since then it wouldn't matter if I failed miserably.

First up is **Flying Flans**. You control a waiter who tries to catch flans which come hurtling over a wall — having been launched by two men with a see-saw and a mallet. Catch the flan and take it off screen. Collect more flans. The graphics are budget standard but it's sort of fun in a way. Once.

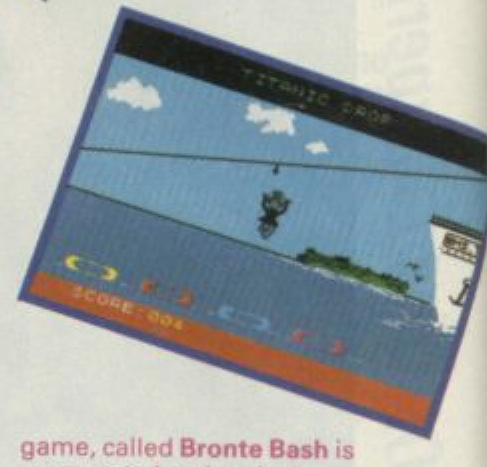
Harlem Hoppers is nothing to do with its title. At first glance it appears you're collecting camel dung whilst stretching against a spring. Actually it appears to be small round objects rolled down the camels back by a woman member of your team. Awful.

Titanic Drop is sliding down a rope trying to land in coloured lifebels. Even more awful.

Diet of Worms has two people dressed as chickens — they have to peck at worms and put them in a tray. The chickens change colour completely because of attribute clash depending on where they are standing. It seems to belong to another game.

Obstacle Race is just like the hundred metres in one of a thousand other **Track and Field** games except that sometimes you have to jump silly obstacles. It is very tedious and it looks appalling. Infinitely worse than a trillion other budget offerings.

However, the marathon



game, called **Bronte Bash** is pretty good, quite nicely programmed and actually very funny (if cruel). You have to move a giant weight and drop it on the head of a brontasaurus which peeps up from inside one of a number of craters. I felt bad about stunning the rather innocent looking beast. The feeling quickly passed.

One OK-ish game and the rest a joke, only in an unintended sense. Just like the TV program really ■

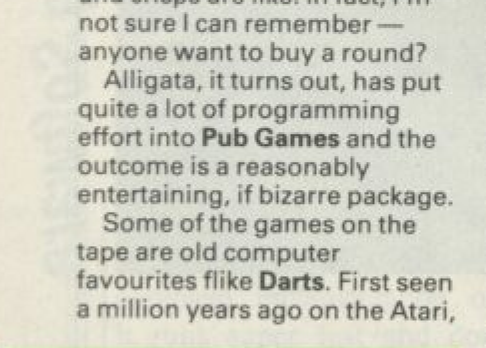
PUBGAMES

Oh well, it's an interesting concept. **Pub Games** is a tape comprising all those pursuits you love to play in between the lager and crisps.

Very young people will just have to imagine what the lager and crisps are like. In fact, I'm not sure I can remember — anyone want to buy a round?

Alligata, it turns out, has put quite a lot of programming effort into **Pub Games** and the outcome is a reasonably entertaining, if bizarre package.

Some of the games on the tape are old computer favourites flike **Darts**. First seen a million years ago on the Atari,



I remember. It's not bad. Line up a cross on the dart board — made difficult because it is jiggling about (too many lagers probably). Then a man in the left side of the screen chucks the dart. Only one complaint — the guy doesn't have an enormous stomach — unrealistic.

Dominoes is unusual, possibly unique on a micro.

Table Football is even more bizarre, it recreates the authentic play of table football very accurately — you need two players — I found it incredibly difficult to play, you have to zoom back and forth along the lines of men and mix 'pull back' shots with an immediately following 'kick' shot. When two people are both trying to do this both using the keyboard it gets finger twisting to say the least.

Both **Poker** and **Pontoon** are pretty much your standard

FACTS BOX

Several games, some very familiar some unique, nothing good or bad. Not very exciting but a twist on the decathlon style

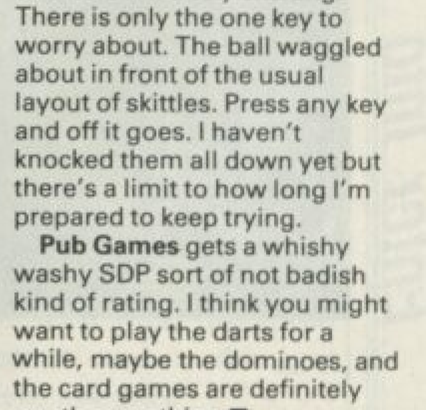
PUB GAMES
Label: Alligata
Author: in House
Price: £9.95
Memory: 48K/128K
Joystick: Kempston
Reviewer: Graham Taylor

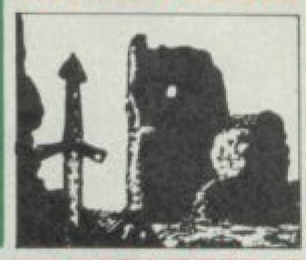
★★★★☆

budget fodder, both play well enough, with quite nicely detailed displays on the cards.

Last on the tape is **Skittles**. Not tremendously exciting. There is only the one key to worry about. The ball waggled about in front of the usual layout of skittles. Press any key and off it goes. I haven't knocked them all down yet but there's a limit to how long I'm prepared to keep trying.

Pub Games gets a whishy washy SDP sort of not badish kind of rating. I think you might want to play the darts for a while, maybe the dominoes, and the card games are definitely worth something ■





ADVENTURE REVIEW

ZARCARON MYSTERY

Zacaron Mystery is another budget adventure from Players — the budget arm of Interceptor.

Interceptor itself has some very good full-price adventures and it's good to see that the company can come up with some decent budget games as well.

The plot is, admittedly, a bit hackneyed. It's the year 3065, and man is still alive: but it's close. The Earth's fuel reserves will only last a few more months. The only things which can save humanity are two Zacaron crystals. And guess who's volunteered to fly off in his spaceship and find them? Right in one.

The crystals, you are told, are located on two distant planets, Prutor and Myra. Unfortunately, you don't know exactly where on each planet. Prutor seems to be a rather rural world. Incidentally, it's well supplied with fuel. Why the population of the earth doesn't just move to Prutor, I don't know . . .

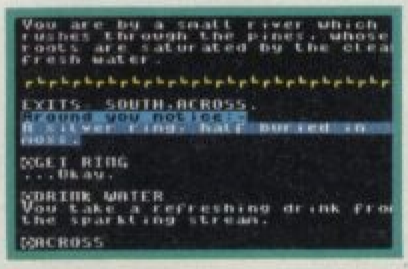
As to what Myra is like, I can't tell you. To get there, you need to solve the first half of the adventure, pick up the crystal and a password which lets you into the second half.

The cassette blurb says you have to beware the acid-filled rivers and the burning sun. So it sounds a lot like Norway — obviously our contribution to the acid rain problem is on rather a larger scale than Mrs Thatcher would have us believe.

Fine, enough preamble — let's get to the meat of the matter.

You communicate with the program with standard verb—noun format. Explore and you don't find a great deal. There's a rather nifty lever you can pull, but if you do it too soon you die. Don't worry. if you're in the right time at the right place you'll know when to pull it.

Right. The ship has landed, you've worked out how to get out of it, and you're standing on Prutor.



▲ **Seems too idylic to be true ● And you'd be right**

Nobody seems to have taken much interest in your arrival, so you'll have to boldly go and find them. While you're at it, it's a good idea to search every location you come across, especially if it seems to be nothing more than a space between one interesting place and another.

I've managed to find about 15 locations so far, and have met two of the inhabitants of the planet. I have the suspicion that I'm not going to get any further until I do certain things with certain objects. But what I have to do, I haven't the faintest idea.

I've managed to find what the old man wants, and got his message — but I can't see the castle he refers to anywhere and I can't get into the hut because whoever lives there just throws me out all the time. Maybe I should climb a tree? There's a nice big fire, but I don't seem to be able to get a torch. What am I supposed to do wth the copper coins, the penknife, the silver ring . . . ?

One nice touch is that the Spectrum *Beeps* when you type — and jut so you don't get sick of the same idiot *Beep*, it changes every so often from a low pitched sound to a high pitched one.

Zacaron Mystery is a really quite nice budget adventure, with clipped but serviceable location descriptions and vary little of the sudden death syndrome that many game authors use when they can't be bothered to set up a decent challenge.

Two little criticisms: firstly, it keeps on printing *More* at the bottom of the screen, so you think something exciting is about to happen — but all the program is telling you is that it's about to repeat the room description because it's scrolled off-screen. Secondly, if it has to play a silly little tune before the game begins, why did it have to be the First Noel? ■

Here's the lever ● I have a nasty feeling this was the wrong moment to pull it ▼



FACTS BOX

Budget adventures can be very variable. And this is one of the better efforts — quite a challenge and well worth the dosh

ZACARON MYSTERY
Label: Players
Author: Ben Hall, Jon Nicholson
Price: £1.99
Memory: 48K/128K

Reviewer: Gary Rook

★★★★☆

SHREWSBURY KEY

Shrewsbury Key is a second budget adventure from Players — and unfortunately this one does show its budget origins a little too clearly.

Adventure games are renowned for having wierd and wonderful plots that mix ideas taken form diverse sources, science fiction, fantasy etc. But **Shrewsbury Key** has one of the strangest plots I've ever come across.

You live in York and have somehow discovered that there is a wonderful jewelled key hidden somewhere in the city of Shrewsbury. Travel there — by British Rail — and find the key. Why? Greed, I suppose — no other reason seems to be given. Me, I like a little more explanation to my plots.

Unfortunately, far too much memory has been devoted to providing the game with some of the most simplistic graphics it has been my misfortune to see. They're terrible. It would have been far better for all concerned had the author just forgotten about the pictures and used the memory space they take up to improve the text adventure.

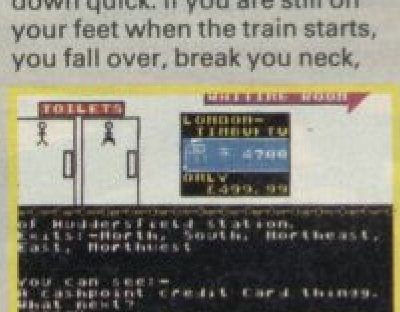


You begin outside York British Rail station trying to get on the 12.30 train to Shrewsbury. If you go in the only direction you can at the start of the game, you find yourself in the station lobby. Search everything — don't be afraid of getting your fingers dirty. They say money is filthy.

While the obvious next step, after having found the filthy lucre, is to buy a ticket, I suspect that you will need the money for something else later in the game. So why don't you try and sneak on to the platform through the fence?

Don't worry about not finding the right train or the right platform — York, it would seem, only has one of each.

Once you're on the train, sit down quick. If you are still on your feet when the train starts, you fall over, break you neck,



and have to restart the game.

Don't be too afraid of the drunken yobbos who get on the train at Leeds: they won't hurt you. They are just a convenient plot mechanism the author can use to have you thrown off the train in Huddersfield. Strange place, Huddersfield. Interesting graffiti in the toilets, but they drive like maniacs.

Anyway, that was about where I gave up on this less than scenic tour of northern England. I admit I've had better train journeys. I wonder. Could British Rail sue? ■

FACTS BOX

Cheap and not cheerful. Very disappointing — a rainy day adventure at best. Enough to put you off Shrewsbury for life

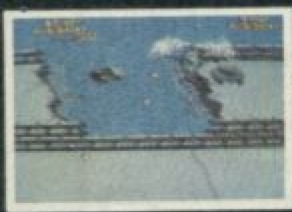
SHREWSBURY KEY
Label: Players
Author: Mark Gibson
Price: £1.99
Memory: 48K/128K

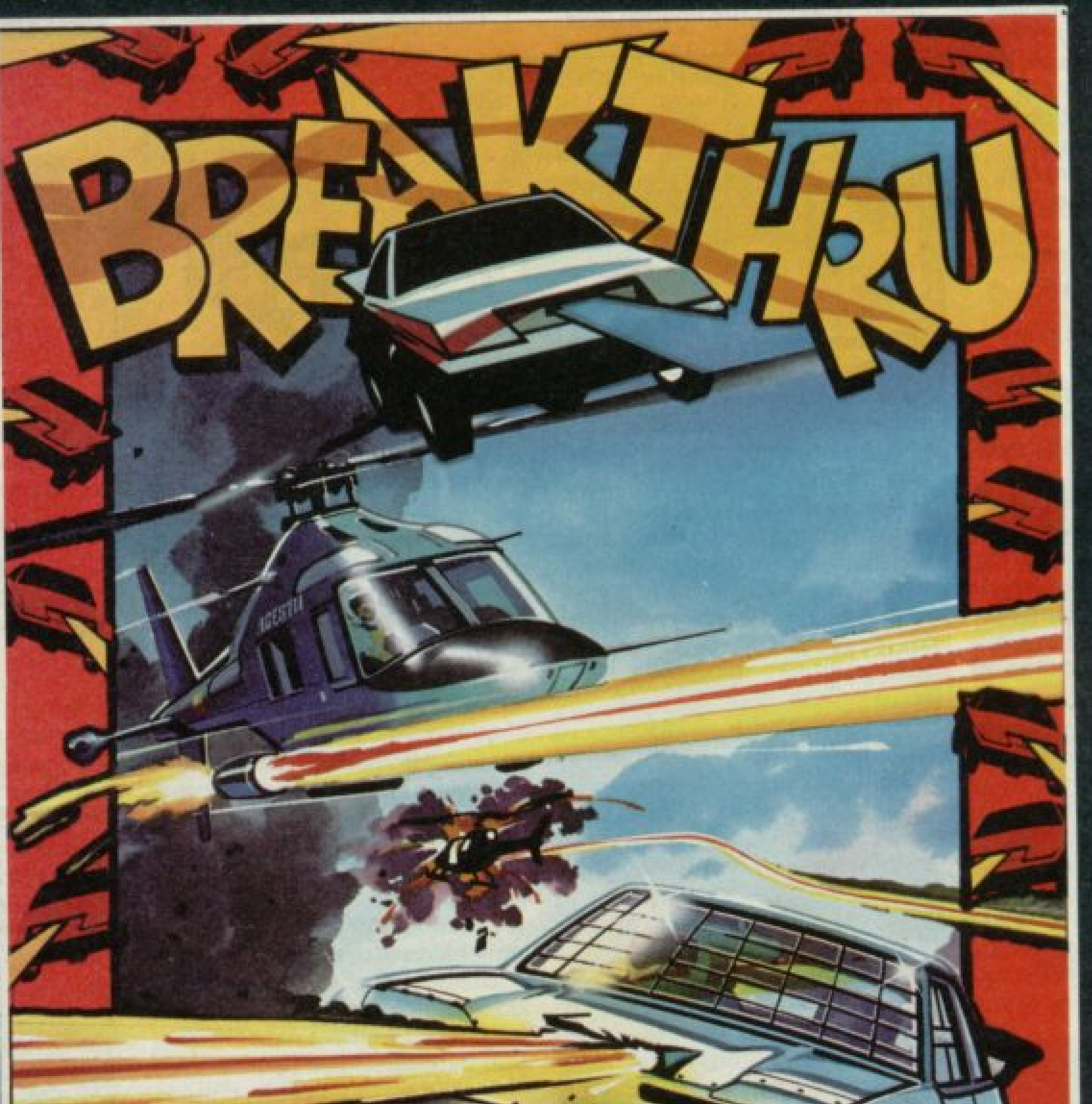
Reviewer: Gary Rook

★★☆☆☆

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The 128K+2 is all very well — in fact it's brilliant — but what about those of us who have an old style Spectrum and want to start busting a few alien heads?

This month following on from our special joystick round up we have a special offer to get you blasting at a budget price.

Sinclair User has arranged with Vulcan Electronics a fantastic special deal on joysticks and interfaces.

CHECK THESE PRICES:

The Gunshot 1 joystick usually retailing for £7.95 has had a whopping 25% lopped off its price and is on offer for £5.95.

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WHAT YOU DO:

Fill in the form below and make out a cheque for whatever you want payable to Vulcan Electronics. Send it together with the form to Sinclair User/, 30-32 Farringdon Lane, London EC1R 3AU. Please allow 28 days for delivery

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....

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Please send me (enter number you want of what and value)

☐ Gunshot joystick(s) at £5.95 each — total value ☐

☐ Joystick(s) and interface(s) at £12.95 each — total value ☐

I enclose a cheque made out to Vulcan Electronics total value ☐

Prices include postage and packing

SURGERY

Sinclair Surgery

Spectrum on the blink? John Lambert has a cure

Spaced out

ON MY 128K Spectrum, when entering a line such as: IF C‹M1 THEN . . . it ends up as IF C‹M1 THEN . . . In 48K mode with the same spacing it enters correctly. Also in 128K mode a line like: IF C = M1 THEN . . . seems to escape this transposition. What's going on?

Alan Scrivens, Feltham, Middlesex

● *The answer is to add a space between the '‹' and 'M1'. The space is not required if you use '‹=' as the editor automatically puts one in*

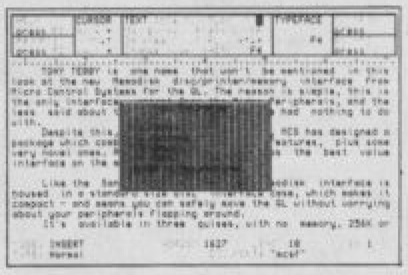
Archive recovery

HAVING LABORIOUSLY created a book catalogue using QL Archive, my son then lost it all when the machine was switched off while the file was still open. All subseqnet attempts to read the file resulted in the message 'Wrong File Type'. He was understandably dismayed at the prospect of having to type it all back in again, whilst I was too miserly to pay the £28.75 subscription to Psion's Support Service:

I therefore decided to look at how **Archive**'s files are constructed. By copying a good **Archive** file to the screen it became apparaent that the first 10 bytes are composed of a 2-byte control field followed by a label of the form 'vrm1fbf0'. On the corrupted file, the 3rd byte had been replaced by a null character (hex 00). In the hope that this was the only difference between a good and a bad file, I used the following program to read the file into memory, *Poke* a 'v' back into the 3rd byte, and write the file back out again to spare formatted cartridge. I then re-booted **Archive**, crossed my fingers and loaded what proved to be a perfectly usable file once more. I had had no idea how much space to reserve and the 20000 was therefore very much a wild guess (on the assumption that an excess would not matter). A quick scan of selected records including the first and last on the file showed that it was complete.

```
100 LET n=RESPR (20000)
110 REMark load corrupted dbf
as a stream of bytes:—
120LBYTES
mdv1-filename-dbf,n
130 POKE n+2, CODE ('v'):
REMark overwrite corrupted 3rd
byte
140 SBYTES mdv2-filename-
dbf,n,20000
```

It may be necessary to experiment with the space to be reserved, but other users of **Archive** may well feel it is better



than losing an entire file. (In my son's case, he had not yet got around to creating a back-up version of his file!)

D E Sullivan
Flixton, Manchester.

● *Corrupted Archive files are a continual source of heartache to many QL users, the only reliable answer is to back up everything. If D E Sullivan's program doesn't work for you there is an excellent utility by Chas Dillon available through Quanta, the QL Users Group. Contact: Brian Pain, 24, Oxford Street, Stoney Stratford, Milton Keynes. MK11 1JU.*

*One final word of warning, there is a bug in the 2.3 release of **Archive**. If the index gets larger than 32K the file is corrupted, if you are likely to exceed this use a number of smaller files*

Hanging on the 128

SOON I WILL be the owner of a Spectrum 128, and was wondering if the Wafadrive and Epson P40 printer work with the new machine. What other peripherals can you attach to the machine?

R A Hipgrave
Penn
Wolverhampton

● *The simple answer is that all peripherals will work with the new machine in 48K mode, where it is just like connecting them to a normal Spectrum. Whether there will be special provision for extra features which make use of the extra memory like a printer buffer or whatever will depend on individual driving software*

Amstrad a no-no

AS WELL as owning a 48K Spectrum I also have an Amstrad CPC6128 with colour monitor I would like to know whether, with colour monitor. I would like to know whether with use of appropriate interfaces, it would be possible to use the Spectrum on the Amstrad monitor.

A R Oakes
Guildford
Surrey

● *The short answer is it's not really possible. the 6128 is designed as a single unit and the guts of the monitor circuitry is mixed in with the main 6128 board*

Opus focus

I RECENTLY purchased an Opus Discovery disc system. In May 1985 you published a review of this system by John Lambert. In this review, comments are made about using the Discovery Ram to alter the disc settings. (I realise that to alter the number of sectors and tracks would require a change of disc drive.) I would be grateful if you could give me any information on changing their values etc. Any other information such as hardware memory addresses would also be appreciated.

David Guest
Harlow
Essex.

● *To alter any of the settings on a Discovery 1 you will have to have a 6116 Ram chip fitted — this is fitted as standard on twin drive units — there is a spare socket on the circuit board under the second drive. When fitted part of the Rom is copied to this Ram which starts it address 8192.*

8192 holds a word which points to a Table. At Table+10 is another pointer to the Drive Tables. The Drive Talbes consist of four words followed by a zero byte. The words point to Drive 1, Drive 2, Drive 3 and Drive 5 respectively, Drive 5 is the Ram disc.

For Drive 1 useful bytes are:

0 DB 40 No. of Tracks
1 DB 18 No. of Sectors
2 DB 01000101B Flag.

Bit 0,1	Physical Drive	01=Left
2	Allow 2nd Drive	
3	Primary or Secondary	
4	No. Sides	0=SS 1=DS
5	Density	0=Dougle 1=Single
6,7	Sector Size	00=128 bytes 01=256 bytes 10=512 bytes
7	DB Flag	00=6ms
Bit 4,5	Step Rate	01=12ms 10=20ms 11=30ms

10 DB 0	Format Type	0=Single 1=Double Density
11 DB 13	Interleave	
12 DB 8	Skew	
13 DB 6	No. Catalogue blocks when formatting	

For Drive 5 the useful bytes are:

0 DW	32768	Start address of Ram disc
2 DW	32	No. of Blocks
4 DW	1024	Size of Blocks
6 DB	7	No. Catalogue blocks when formatting

Drive, he said

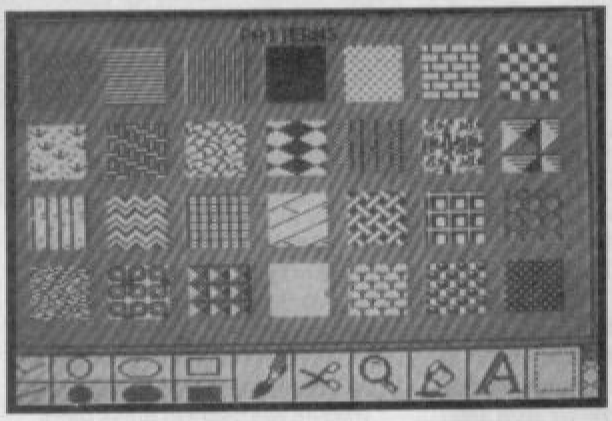
COULD YOU please tell me if it is possible to fit five 48K Spectrum computer games on one 3½ inch 250K disc drive. It if is not, then please tell me how many you can fit on one disc. My disc drive is an Opus (Discovery One). Could you also tell me which disc I would require. Is it the 3½ inch S/SS/D or the 3½ inch D/SD/D? Lastly, are there any problems in transferring cassette software to disc?

Stuart Shelford
Kempston
Bedford.

● *The number of games you can get on one disc depends on the size of the games. A standard game with a Basic loader, title screen and the game can take up to 60K, in which case you would only get three to a disc.*

The discs you need to buy are SS/DD ■







WORK-OUT REVIEW

THE ARTIST II

The **Artist II** is not merely an enhanced version of **Artist I**. It is now a complete suite of graphics utilities to let you do just about anything you could wish with visual images on the Spectrum.

There are three parts to the package, **Artist II** proper, which is a development of **Artist I**, a sprite designer and a page make-up program.

The Artist was always regarded as one of the very best art programs for the Spectrum with only **Art Studio** from Rainbird a serious competitor.

Now the **Artist II**, quite apart from the additional programs must grab the lead as best Spectrum artist program bar none.

Some features of the original **Artist** program are retained intact. The guide grid of light and dark squares is retained. The assorted fill designs are retained as well as the option to design your own. Also retained from **Artist I** are the various brush styles, the magnify-an-area-of-screen option and the overall on-screen look.

So what's new? Most of the improved elements concern the way the program allows very sophisticated cutting and pasting. There are two ways of achieving similar results. There is the standard 'box' option where you use a cursor to set the opposite corners of a rectangular box. The section of picture framed by this box can be moved around the screen at will and even placed at right angles. This facility is easy to use and fast.

The clever stuff starts happening when you start using the outline *Cut*. This allows you to 'grab' a shape by closely outlining it. You are not restricted to box outlines but can choose any shape you wish. There are two restrictions (at least on the pre-production copy we had for review): it has to be used black-and-white to look effective and you cannot use it any other size. However, it is still a very sophisticated feature indeed, and becomes particularly effective when you are using discs or Microdrives where other picture files may be 'pilfered' for useful designs and shapes.

The usual intelligent features are included. When you *Cut* and *Paste* the window shape will, unless you tell it otherwise, always adjust in character squares so that your cut section of picture won't pose any attribute problems. Pictures may be overlayed for unusual effects or wipe out the old background.

The program is supplied with half a dozen or so assorted fonts for labelling and will work with both the AMX and Kempston mice. Apart from the small restriction on the 'cut out' facility mentioned above, the **Artist II** does, it would seem, just about everything that can be done on the Spectrum.

So, how about the other two parts of the **Artist II** package?

The page make up system allows for images created with the **Artist** to be mixed with text files created with the Softechnics' other utility, **Writer** word processor. This link is a sophisticated facility which should be of great interest.

The sprite designer has also been written by Bo Jangeborg (author of both versions of the **Artist** and **Fairlight**) and it is extremely sophisticated. Although, in the end all sprite/character designers come down to a grid of pixels which you switch on or off, where this one scores is in the amount of information you get about the design you are currently working on and, more important still, how that design corresponds with previous designs.

The sprite designer works a little like those flick books where the impression of animation is gained by flicking the pages quickly. The individual frames on each image are created using the usual icon/joystick off/on grid pixel system. The design can be seen both magnified and at actual size. Having created a series of designs you can then instruct the computer to flick between the images and see the final animated effect.

Bo has used this system to create most of the animation effects in **Fairlight II** – an impressive demonstration of the systems' power.

The **Artist II** has been designed, I would say, very much with mice and disc/Microdrive storage systems in mind and without these extras you might not want to up-grade from the original **Artist** but nevertheless this is a superb program — a serious tool in fact.

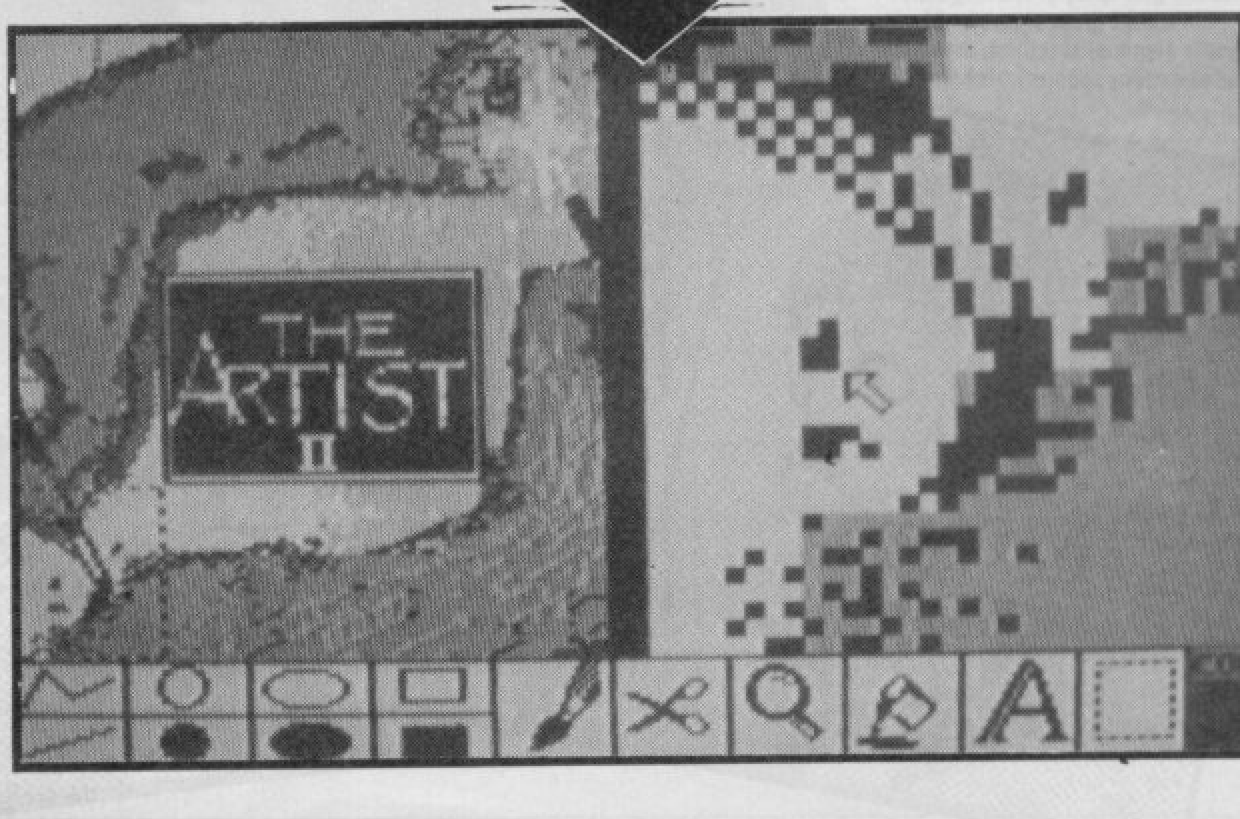
A 128K version is also available which uses the extra storage available ■

FACTS BOX

Perhaps the definitive artist program. Easy to use but with incredibly powerful features

★	ARTIST II
★	Label: Softechnics
★	Price: £14.95 (£17.95 128K)
★	Memory: 48K/128K
★	Mice: Kempston, AMX
	Reviewer: Graham Taylor

SINCLAIR USER CLASSIC



BACKGROUND NOISE

Background Noise looks behind the top games of the moment and speaks to the programmers who sweated blood to produce them. Background Noise looks from the author's point of view — at the particular programming problems and the way they were solved

PAPERBOY

by Steve Lamb

"The screen graphics for the *Paperboy* conversion were all sketched down from countless trips to the local arcade," says Steve Lamb, who converted Elite's latest coin-op biggie to the Spectrum. "Sometimes it was quite embarrassing because mostly the plans were noted down looking over someone else's shoulder while they were playing. Quite often they wondered what I was doing."

Paperboy is the first major league coin-op conversion Steve has done and he was given the job after writing in on spec to Elite with some examples of his work. Elite has established itself as the arcade conversion kings after the twin No 1s of *Commando* and *Ghosts 'n' Goblins* and Steve was very surprised to be given such a prestigeous conversion as *Paperboy* straight off.

Converting a title from the arcades seemed, on the face of it, to be easy. After all, it's not as though you have to invent a game or develop a gameplay — that's all done for you.

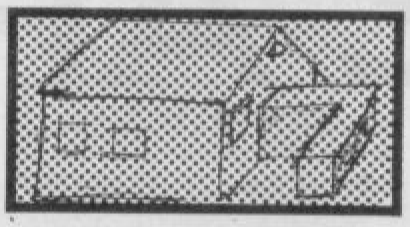
But, as you can see from the example at the start, every conversion presents its own heap of special problems. Coin-up manufacturers are notorious at not providing 'inside' info on how their games are built up — even to their official licence holders.

How do you take a game on a customised arcade machine — with whole banks of video chips and stacks of Ram — and crush it down into a 48K game that still retains the feel and gameplay of the original?

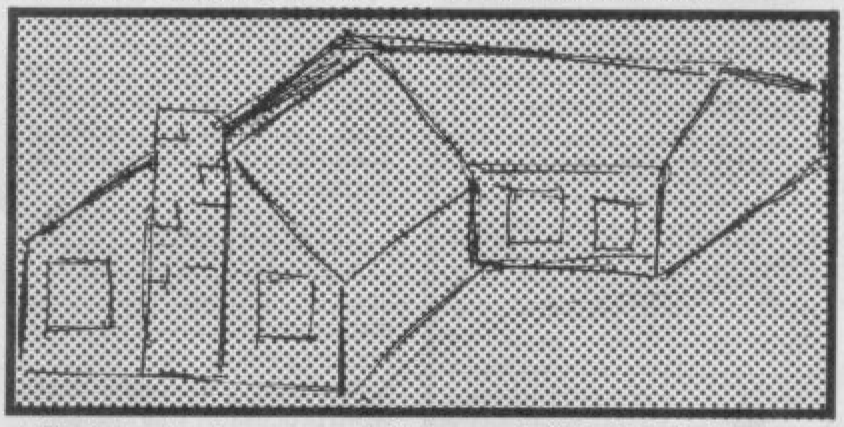
"For a start the program had to handle diagonal scrolling, smoothly and at various speeds which was obviously going to present a problem on the Spectrum," says Steve. "The way I did it was to set aside an area in memory to store the screen backgrounds — the houses, gardens and so on. This area is then scrolled *before* being moved on to the screen. It wasn't until after I'd sorted out the scrolling that I could begin to get on with the main code.

"I did have a couple of very poor photos to work with, but that was all. My main concern was trying to fit in as much detail as possible, since that was one of the strengths of the arcade original. A whole lot of compressing had to be done before it would all fit."

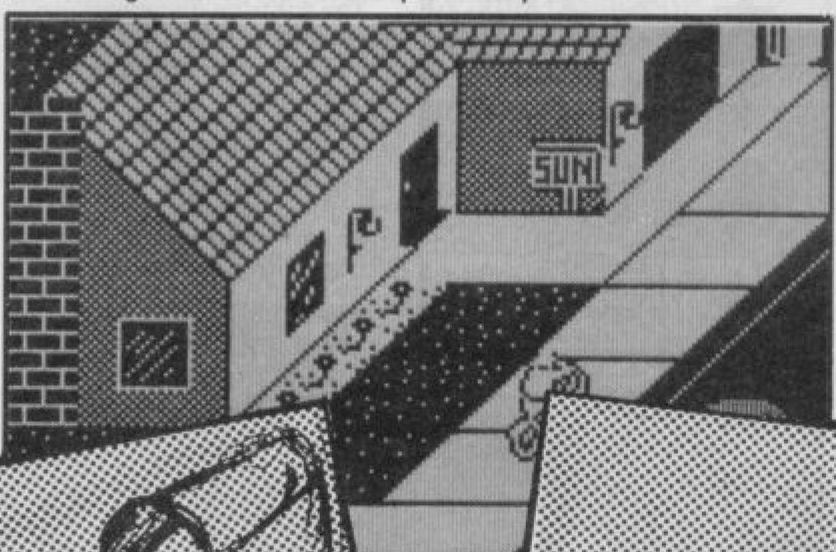
The graphics for the houses and the pavement took the most effort to complete. "The machine-code editor I was using was amazingly slow and the road, by the time I'd finished it, was about 14K of code long."



▲ Above, one of Steve's early sketches for a house ● Try and spot it while you play the game!



▲ The design drawing compared with the same building in the finished game
▼ Steve says programming the graphics for the houses took the most time. And looking at the end result it's easy to see why!



The best part of the program — as far as Steve is concerned — is the way his 'handlebars' section worked with the high-score table: "It's worked out pretty neat. I managed to put the graphics for the handlebars of the cycle in the border on the high-score area — unfortunately it took up rather more memory than I could really afford but it looks good.

"When you begin to break down the gameplay of the original you begin to realise just how complicated it actually is. You have to deliver papers to houses — OK. That sounds straightforward enough. But it's how you deliver them that matters and the game gives a variety of options. It will be either a perfect delivery, or maybe a window will get broken, or maybe the player will miss.

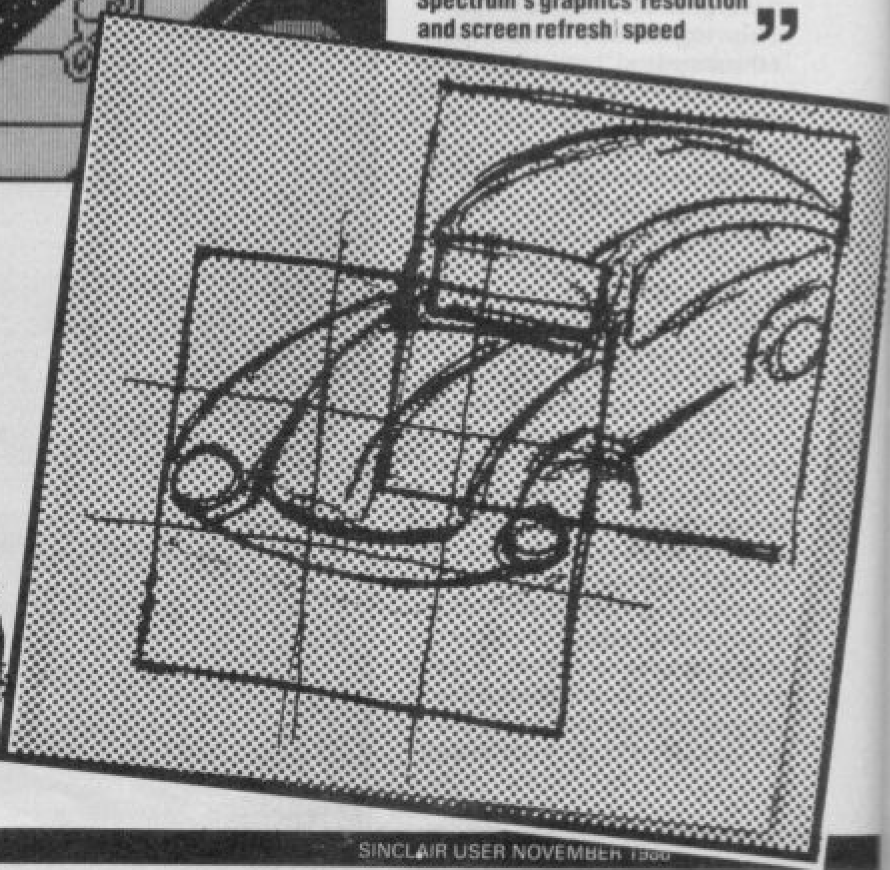
"The number of options at each point of the program makes the programming task very difficult."

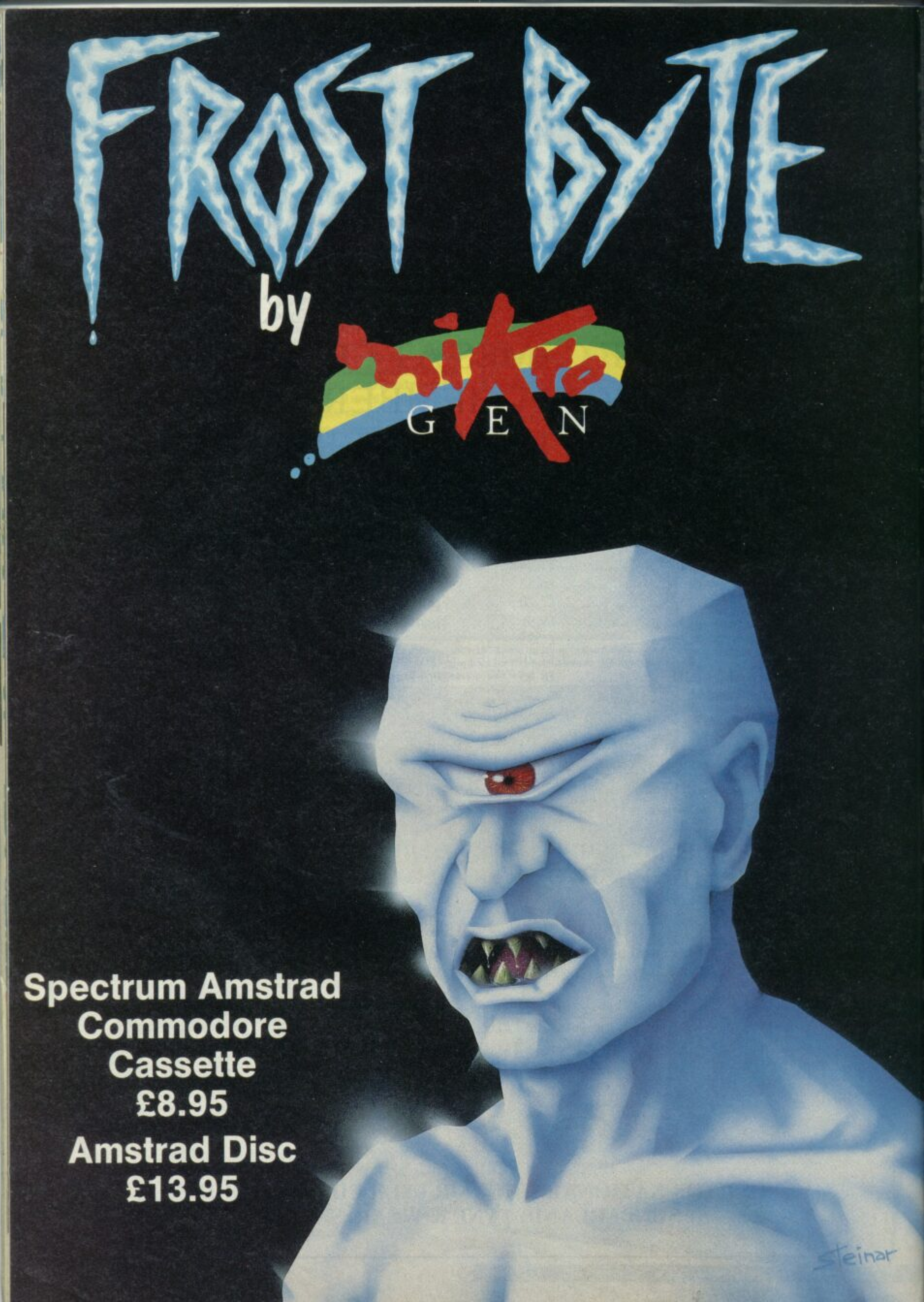
Steve explains some of his programming secrets: "The sprite routines are a 24* 24 pixel mask, and the scroll routine is a simple recursive program. Data is positioned on screen by actually using the screen as the memory stack pointer, taking the data from memory, and locating it at the pointer. It worked well for *Paperboy* but there are faster methods."

"The graphics for the road/pavement/houses are stored in memory as graphics characters". Incidentally, the same technique as Tony Crowther used in his early titles — and it also explains why the background graphics on *Paperboy* take up so much Ram.

Despite the length of coding time Steve reckons the conversion is reasonably faithful to its coin-op roots. "The scrolling is good considering the detail of the graphics and I think the end result turned out to be about as good a compromise as you're going to get between the original and the limitations, by comparison, of the Spectrum's graphics resolution and screen refresh speed"






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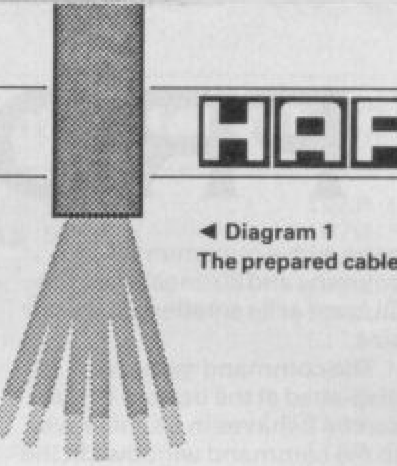
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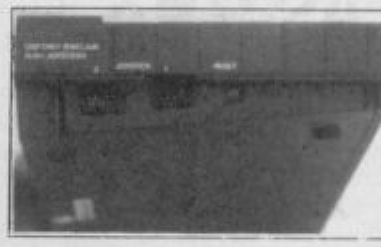


BEST EVER
5 YEARS OLD & STILL N°1
In the beginning there was Computer + Video Games. From the start we were first with the last word on computer games. And we still are. This November we take on Aliens, put our lives at stake with Dracula and put the heat on Firelord. And don't miss our FREE I.D.E.A's Central handbook with hints, help and maps on all the best games around. We also look back at five years of C+VG, remember the best games and shed a tear for computers we have known, loved and lost. That's all in addition to the usual mega-mix of news, reviews, features, competitions and posters. We've been in the forefront of the home computer revolution for five years and we intend staying there for the next five. Check us out on October 16.
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DIY project to do for your 128K+2



◀ **Diagram 1 The prepared cable**



Do you want the good news or the bad news? The good news is at long last a Sinclair machine has a joystick socket as standard. The bad news is you can't just plug any old joystick into the 128K+2, as the pin-out arrangement is different. If you do plug your normal joystick in it shouldn't do any damage to either machine or joystick, but it simply won't work.

In this article I'll show how to construct a simple adaptor that lets you plug in your favourite, conventional joystick into your 128K+2.

To build it you need a fine-tipped soldering iron (15-25 watts), a cable stripper or pliers, and a few, easy-to-get components:

- One 9-pin D-type male connector and cable hood
- One 9-pin D-type female connector and cable hood
- A short length of 6-way cable
- Solder

Table 1 shows how different the 128K+2 socket pin-out arrangement is from the standard Atari-type joystick connection.

Table 1. How the connections shape up — Normal vs 128K+2

Pin	128K+2	Normal
1	—	Up
2	GND	Down
3	—	Left
4	Fire	Right
5	Up	—
6	Right	Fire
7	Left	—
8	GND	GND
9	Down	—

What to do

To start with you should prepare the cable. Cut it to the length you want — about 30 cms should be enough, then strip back the main insulation from both ends about 3 cms, taking care not to damage the separate insulations covering the small cables within. If you have screened cable (cable with a bare metal stranded screen around all the wires) you can cut it off — it's not required for such a short length.

Next, strip back about 1 cm of insulation from each of the inner cables at both ends, and 'tin' the exposed metal, by flowing a small amount of solder on to the heated cables. When both ends are prepared, they should look something like Diagram 1.

Now connect one end of the cable to the female socket (that's the one that plugs into the 128K+2). You must fix the socket down to your work surface somehow before trying to attach the wires to it — either get a friend to hold it with a pair of pliers (not with their fingers — the socket gets very hot!), or hold it in a vice. Failing this, you can use a lump of Blu-tac to hold it down.

Having fixed the socket suitably, you should tin each little connector, ready for the wires. So you don't get lost, I suggest you write down the colours of each of the cables on Figure 1 and connect that end as per the diagram — most sockets usefully have the pin numbers shown. When you have done that end it should look like something approaching Diagram 2, now STOP!

Before you even think about doing the other end, put one of the cable hoods on the connector. The exact method will depend on the particular brand, but most incorporate a cable clamp, and you should always use it, as anything connected to a joystick has to withstand a lot of strain. Having done that end, put the other cable hood the other way round on the cable — if you solder the other connector on without doing this you won't be able to put the shell on, and you'll have to disconnect all six cables and try again! By this stage your adaptor should look like Diagram 3.

Now you should fix the cables to the male connector, the one that plugs into your joystick, in a similar way to the other one — using the colours as a guide to make sure you follow the arrangement in Figure 1. When it's done you can slide the cable hood up the cable (you did put the other hood on, didn't you?) and fix it to that end.

That's it — all you have to do now is plug it in and test it.

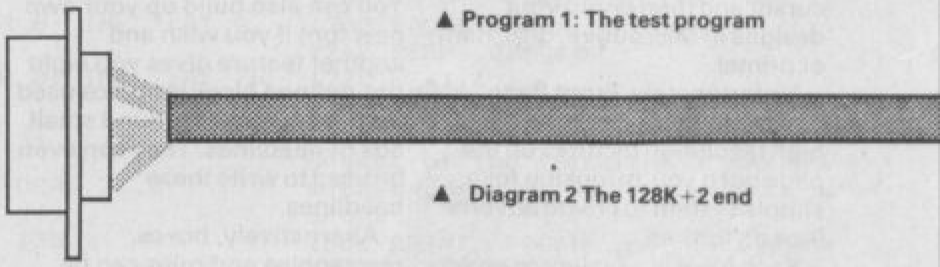
To test your joystick adaptor plug everything together, and type in and *Run* the following short Program 1, and waggle your stick about. If you get nothing at all, check that the GND line is connected properly. If you get the wrong direction printed, you've probably got some wires crossed! ■

John Pole

Warning — NEVER try and plug the adaptor into anything else other than a 128K+2. It might short out the computer's 5 volt line, and cause all sorts of mayhem!

```
  10 LET a$=INKEY$
  20 IF a$<"0" OR a$>"9" THEN GO
 TO 10: REM keypress
  30 PRINT AT 6,6;"Joystick
    ";AT 6,16;
  40 IF a$>"0" AND a$<"6" THEN G
O TO 90: REM joystick 2
  50 REM joystick 1
  60 PRINT "1, ";
  70 LET a$=STR$ (ABS (VAL (a$)-
5))
  80 GO TO 100
  90 PRINT "2, ";
 100 IF a$="5" THEN PRINT "Fire!
"
 110 IF a$="4" THEN PRINT "up"
 120 IF a$="3" THEN PRINT "down"
 130 IF a$="2" THEN PRINT "right
"
 140 IF a$="1" THEN PRINT "left"
 150 GO TO 10
```

▲ **Program 1: The test program**



▲ **Diagram 2 The 128K+2 end**

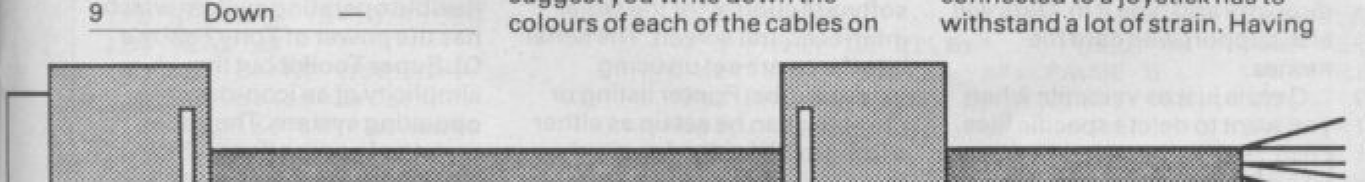


Diagram 3 The 128K+2 end done

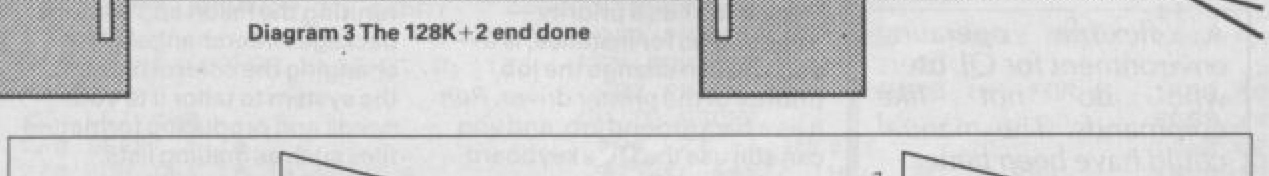


Figure 1 Both connectors viewed from behind showing which wires go where

QL REVIEW

FRONT PAGE

Hold the front page! Desk top publishing has hit the QL.

Gap software hasn't produced a competitor quite up to the level of Mirrorsoft's **Fleet Street Editor** but you can use its **Front Page** to whip up a tasty newsletter or homespun magazine with a variety of type faces and simple illustrations.

Front Page puts you in the position of a designer.

Start with a blank page and it's all there for you. Different type faces at your command together with an armoury of graphics and text. Choose where you want the text with the cursor and then dump your designs to Microdrive, disc, Ram or printer.

Unfortunately, **Front Page** doesn't allow you to produce high resolution pictures on the page but if you're looking for a simple system to create adverts look no further.

Each file is equivalent to an A4 page with a maximum of 133 columns and 80 lines when the QL's set at its smallest character size.

The command menu displayed at the bottom of the screen behaves in a similar way to the command windows in the Psion applications suite.

You can only display part of a page at a time which is a bit of a disappointment. You can pan around that page in a similar way to a spreadsheet and drop text and graphics on to it by manually pasitioning the cursor in your selected spot.

The print cursor can be moved in eight directions and you specify the co-ordinates to which you want to move the cursor. Once it's in position you can choose your type face which can be normal or double height in *X* or *Y* dimensions and toggled between a set of character sets resident in Ram. You can also build up your own new font if you wish and another feature gives you eight pre-defined block graphics used for placing boxes around small ads or headlines. They can even be used to write these headlines.

Alternatively, boxes, reactangles and rules can be

FACTS BOX

An innovative design package with page maker potential. Shows small companies can still make magic

FRONT PAGE
Label: Gap Software:
Price: £22.50
Joystick: *any*
Memory: 128K/256K

Reviewer: John Gilbert

★★★★★

created using the *Draw Line* function.

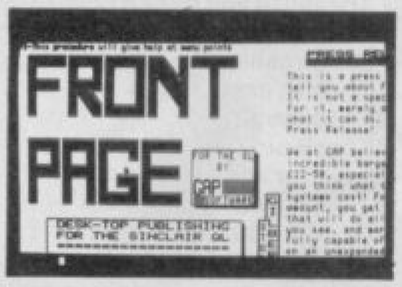
Cut and *Paste* functions are similar to those used in graphics packages such as **QL Paint**. You set up an imaginary window around the text you want to move from one part of the page to another. You select the top left-hand corner of the imaginary text box, then define the bottom right-hand corner.

Unlike the graphics packages the boundaries of the window are not defined by a rubber-randed box. You'll have to move the cursor to the destination and execute the *Paste* before you see if the results are what you want.

The printer driver is one of the strengths of **Front Page**. It can be user defined to dump graphics and text to any Epson compatible printer. The printer must be double-density though so you can get all the information from your Ram page on to paper. With only a single density printer you'll just get the first 480 pixels of your file output.

Front Page will never be a match for expensive page maker systems which work on such systems as the Amstrad PC or Apple Mac.

It will, however, produce a well formatted page and you can easily use it to lay out and produce a news sheet for your local club or school ■



QATS

The universe is yours — well, the QL part of it anyway – if you get a copy of Cope Software's **Qats** QL utility.

Qats is a complex utility package, designed to minimise keyboard usage, access QDOS job control facilities and manipulate Basic or machine-code files. It's menu-driven and consists of a series of useful utility jobs, some of which are loaded with the program and others which are stored on a second Microdrive.

If you find the QL's operating system a pain and you can't remember all those complex commands to open windows, consoles or printer drivers, **Qats** is for you. It reduces them all to a series of menus from which you can control the actions of your QL.

Not only that, **Qats** gives you access to the hidden areas of your machine — such as the allocation of Ram to QDOS jobs and allows you to multi-task programs such as the Psion business packages. In short, it does all the dirty work and takes away the hassle.

Qats can quickly copy selective files or whole Microdrive cartridges. Select the type and number of medium you want to use and format the destination drive's cartridge if you are going to dump one cartridge of files to another.

If you're copying a cartridge of files the procedure is automatic and you'll get a directory of files from the destination drive. If you want to copy a specific file read its name from the source directory and type it in. **Qats** will also support wild card file names.

Qats is just as versatile when you want to delete specific files.

FACTS BOX

A flexible operating environment for QL users who do not like commands. The manual could have been better

QATS
Label: Cope
(3 Langham Mansions, Earls Court Square, London SW5)
Price: £20.00

Reviewer: John Gilbert

★★★★☆

The wild cards work in the same way as *Copy* and the process takes just a few key presses rather than you having to use the QL's complicated *Delete* command.

The package includes software control for the serial interfaces and screen. The serial interfaces are set up using external jobs. Printer listing or dumping can be set up as either a foreground or background task.

Each job has a priority — SuperBasic, for instance, is 0 — and you can change the job priority of the printer driver. *Run* it as a background job, and you can still use the QL's keyboard and devices; *Run* it as a foreground task and it takes precedence over such computer tasks as reading the keyboard or servicing devices such as *Ser1* and Microdrives. The latter case will lock up the keyboard and everything else while printing.

Unformatted files can be dumped to user-defined screen windows just as easily as they can be output to the printer. You specify which file you want to output to the screen then open a window using the *SCR* SuperBasic window instruction together with the dimension of the window scale — in pixels.

The facility works in a similar, but more flexible, way to the SuperBasic *Copy* command. Normally you'd output a file from Microdrive one to the screen by typing *Copy Mdv1_ File To Scr_*. However, the whole thing's made simple with **Qats**.

Cope has produced a very flexible operating system which has the power of Tony Tebby's **QL Super Toolkit** but the simplicity of an icon-driven operating system. The wide variety of applications which **Qats** makes possible include running the Psion applications packages interchangeably, changing the control menus on the system to tailor it to your needs and producing formatted files such as mailing lists.

Qats is an incredibly complex suite of utilities with a manual which tries to be helpful but, unfortunately, is a jungle of examples.

If you can bear with the manual then you'll find **Qats** to be a viable alternative to Eidersoft's **ICE** — without the icons.

It's fast, expertly programmed, and gives access to the hidden levels of QL software ■

BOGGLE

D L WEBSTER

Boggle is a computerised version of a well-known 'fun for all the family' dice game. Actually it's really good, honest.

The dice, each of which bear letters instead of numbers upon their faces, are rattled in a most ferocious manner. When they come to rest, you try to make as many words as possible out of the adjacent letters. full instructrions are included in the program.

When typing in, you'll come across things such as "(2*G8)". This simply means that you must insert two (hence the 2) graphic symbols (G) found on the 8-key. Also, "(2*sp)" means that you must insert two spaces (sp). Easy, isn't it?

```
  0>REM Written by D.L.WEBSTER
  20 DIM b(16): DIM b$(16,1)
  30 OVER 0: LET e=0: LET sc=0:
 LET z=0
  40 GO SUB 1030
  50 GO SUB 1400
  60 GO SUB 100: CLS
  70 GO SUB 590
  80 GO SUB 460
  90 GO TO 230
 100 IF sc=10 THEN  GO TO 1440
 110 FOR z=1 TO 16
 120 LET a=INT (RND*16+1)
 130 LET b(z)=a
 140 FOR y=1 TO z-1
 150 IF a=b(y) THEN  GO TO 120
 160 NEXT y
 170 RESTORE (a*10)+1520
 180 READ a$
 190 LET c=INT (RND*6+1)
 200 LET b$(z)=a$(c)
 210 NEXT z: LET sc=sc+1
 220 RETURN
 230 BEEP .1,10: PRINT AT 21,0;"
     PRESS ANY KEY TO START
 ": PAUSE 0
 240 PRINT  PAPER 5;AT 21,0;"(33
 *sp)"
 250 LET d=0
 260 BEEP .1,10
 270 FOR l=4 TO 16 STEP 4
 280 FOR r=4 TO 16 STEP 4
 290 PRINT AT l-1,r-1;"(3*G8)"
 300 PRINT AT l,r-1;"(G8,sp,G8)"
 310 PRINT AT l+1,r-1;"(3*G8)"
 320 LET d=d+1
 330 INVERSE 1
 340 IF b$(d)="Q" THEN  PRINT AT
 l,r;"Qu": GO TO 360
 350 PRINT AT l,r;b$(d)
 360 INVERSE 0
 370 NEXT r: NEXT l
 380 IF e=1 THEN  LET e=0: GO TO
 970
 390 GO SUB 790
 400 FOR l=4 TO 16 STEP 4
 410 FOR r=4 TO 16 STEP 4
 420 PRINT AT l,r;"(2*G8)"
 430 NEXT r: NEXT l
 440 GO SUB 930
 450 GO TO 230
 460 FOR l=27 TO 155 STEP 32
 470 LET r=20
 480 INK 2
 490 PLOT r,l: DRAW 128,0
 500 PLOT r,l+1: DRAW 128,0
 510 NEXT l
 520 FOR r=19 TO 147 STEP 32
 530 LET l=27
 540 PLOT r,l: DRAW 0,129
 550 PLOT r+1,l: DRAW 0,129
 560 NEXT r
 570 INK 0
 580 RETURN
 590 FOR l=2 TO 18
 600 PRINT  PAPER 6;AT l,2;"(17*
 sp)"
 610 NEXT l
 620 FOR l=2 TO 18
 630 PRINT  PAPER 6;AT l,21;"(10
 *sp)"
 640 NEXT l
 650 PRINT  PAPER 0; INK 7;AT 2,
 29;" ";AT 2,21;"ROUND: ";sc
 660 PRINT  PAPER 0; INK 7;AT 18
 ,21;"TIME LEFT"
 670 PRINT  PAPER 0; INK 7;AT 4,
 24;"MAX"
 680 PRINT  PAPER 0; INK 7;AT 16
 ,24;"MIN"
 690 FOR l=48 TO 71
 700 INK 2
 710 PLOT 192,l: DRAW 23,0
 720 NEXT l
 730 FOR l=72 TO 135
 740 INK 4
 750 PLOT 192,l: DRAW 23,0
 760 NEXT l
 770 PAPER 7: INK 0
 780 RETURN
 790 OVER 1: INK 4
 800 FOR l=135 TO 72 STEP -1
 810 PAUSE 50
 820 PLOT 192,l: DRAW 23,0
 830 NEXT l
 840 FOR l=71 TO 48 STEP -1
 850 PAUSE 30
 860 INK 2
 870 PLOT 192,l: DRAW 23,0
 880 BEEP .005,80-l
 890 NEXT l
 900 INK 0
 910 OVER 0
 920 RETURN
 930 PRINT AT 21,0;"     PRESS AN
 Y KEY TO REVEAL      ": PAUSE 0
 940 PRINT  PAPER 5;AT 21,0;"(33
 *sp)"
 950 LET d=0
 960 LET e=1: GO TO 250
 970 GO SUB 100
 980 PRINT AT 21,0;"  PRESS ANY
 KEY FOR NEW ROUND    "
 982 PRINT )1;"  PRESS (H) FOR H
 OW TO SCORE  "
 984 LET z$=INKEY$
 985 IF z$="" THEN  GO TO 984
 986 IF z$="h" THEN  LET z=1: CL
 S : GO SUB 1300
 988 CLS
 990 BEEP .1,10
 1000 PRINT  PAPER 5;AT 21,0;"(33
 *sp)"
 1010 IF sc>1 THEN  GO SUB 590: G
 O SUB 460
 1020 RETURN
 1030 LET c$="BOGGLE A WORD GAME
 FROM WEBCAN"
 1040 BORDER 1: PAPER 5: INK 0: C
 LS
 1050 LET g=0
 1060 LET g=g+1
 1070 FOR l=21 TO 2 STEP -1
 1080 PRINT  PAPER 6;AT l,g;c$(g)
 1090 IF l=2 THEN  GO TO 1120
 1100 BEEP .005,l
 1110 PRINT AT l,g;" "
 1120 NEXT l
 1130 IF g=30 THEN  GO TO 1150
 1140 GO TO 1060
 1150 PRINT
 1160 PRINT "  This word game is f
 or two or     more players."
 1170 PRINT
 1180 PRINT "  The object of the g
 ame is to     write down as many
 different     words as possible.
 And there     must be a minimun o
 f four        letters to score po
 ints."
 1190 PRINT
 1200 PRINT "  Each letter on the
 4x4 grid      can only be used on
 ce in each    word, and each lett
 er no         matter what directi
 on must       follow on to form t
 he word.      The bigger the word
  the more     points you get."
 1210 LET c$="PRESS ANY KEY"
 1220 PRINT AT 21,9;"";
 1230 FOR l=1 TO LEN c$
 1240 PRINT  PAPER 6;c$(l);
 1250 PAUSE 10
 1260 BEEP .005,10
 1270 NEXT l
 1280 PAUSE 0: CLS
 1290 PRINT : PRINT ;"Each game c
 onsist of ten rounds.And you hav
 e 80 seconds to writedown your w
 ords."
 1300 PRINT  PAPER 6;AT 5,10;"HOW
  TO SCORE"
 1310 PRINT  PAPER 6;AT 7,4;"4 Le
 tters  =  1 Point. "
 1320 PRINT  PAPER 6;AT 9,4;"5 Le
 tters  =  2 Points."
 1330 PRINT  PAPER 6;AT 11,4;"6 L
 etters  =  3 Points."
 1340 PRINT  PAPER 6;AT 13,4;"7 L
 etters  =  5 Points."
 1350 PRINT  PAPER 6;AT 15,4;"8 L
 etters  =  9 Points."
 1360 PRINT AT 17,0;"You only get
  points for words   your opponen
 ts hasn't got."
 1370 PRINT AT 21,0;" PRESS ANY K
 EY, AND GOOG LUCK!": PAUSE 0
 1375 IF z=1 THEN  LET z=0: RETUR
 N
 1380 CLS : INK 7
 1390 RETURN
 1400 PRINT  INK 0; PAPER 6; FLAS
 H 1;AT 9,1;"(32*sp)"
 1410 PRINT  INK 0; PAPER 6; FLAS
 H 1;AT 10,1;" COMPUTER THINKING
 PLEASE WAIT"
 1430 RETURN
 1440 PRINT AT 21,0; FLASH 1;"
 ****   GAME  OVER      ****    ":"
 1450 PRINT  PAPER 1; INK 7;)0;"P
 RESS (Y) FOR NEW GAME/(N) QUIT"
 1460 LET z$=INKEY$
 1470 IF z$="" THEN  GO TO 1460
 1480 IF z$="n" THEN  NEW
 1490 IF z$="y" THEN  GO TO 1510
 1500 GO TO 1460
 1510 CLEAR
 1520 GO TO 20
 1530 DATA "SRLACE"
 1540 DATA "UPSTLE"
 1550 DATA "SDOWNE"
 1560 DATA "NESPIH"
 1570 DATA "BMAJOQ"
 1580 DATA "MHOSRA"
 1590 DATA "LYEKGU"
 1600 DATA "NEVDAZ"
 1610 DATA "BYITAL"
```

106

```
1620 DATA "TADCIA"
1630 DATA "GILRUW"
1640 DATA "MPEDCA"
1650 DATA "IOXBFR"
1660 DATA "HIEFEY"
1670 DATA "TGENIV"
1680 DATA "NOUTDK"
```

AXE HERO

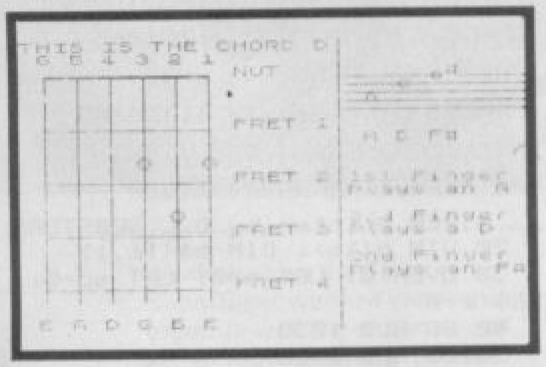
IAN CATTEL

Axe Hero is a very useful program indeed. It teaches you how to play all the major chords in the first position on the guitar. You select which chord you wish to play, and it gives you a graphic representation of the frets, and the positioning of your fingers. It's all very neat.

The dump shows the main screen display, showing the user how to create Chord D.

A word of warning. The program uses standard teaching methods and, in some places, makes approximations over fingering positions

```
  15 CLS
  20 PRINT "THESE ARE THE CHORDS
 WE WILL    LOOK AT IN THIS PROG
RAM"
  30 PLOT 24,144: DRAW 20,0: DRA
W 0,-40
  40 PLOT 56,144: DRAW 20,0: DRA
W 0,-40
  50 PLOT 88,144: DRAW 20,0: DRA
W 0,-40
  60 PLOT 120,144: DRAW 20,0: DR
AW 0,-40
  70 PLOT 152,144: DRAW 20,0: DR
AW 0,-40
  80 PLOT 184,144: DRAW 20,0: DR
AW 0,-40
  90 PLOT 216,144: DRAW 20,0: DR
AW 0,-40
 100 PLOT 24,104: DRAW 0,40
 110 PLOT 56,104: DRAW 0,40
 120 PLOT 88,104: DRAW 0,40
 130 PLOT 120,104: DRAW 0,40
 140 PLOT 152,104: DRAW 0,40
 150 PLOT 184,104: DRAW 0,40
 160 PLOT 216,104: DRAW 0,40
 170 LET A=28
 171 LET C=A
 175 FOR Z=1 TO 35
 180 PLOT A,144: DRAW 0,-40
 190 LET A=A+4
 193 IF A=44 THEN  LET A=A+12
 194 IF A=76 THEN  LET A=A+12
 195 IF A=108 THEN  LET A=A+12
 196 IF A=140 THEN  LET A=A+12
 197 IF A=172 THEN  LET A=A+12
 198 IF A=204 THEN  LET A=A+12
 200 NEXT Z
 203 LET F=136
 205 FOR H=1 TO 5
 210 LET E=24: LET G=20
 215 FOR Y=1 TO 7
 220 PLOT E,F: DRAW G,0
 230 LET E=E+32
 240 NEXT Y
 250 LET F=F-8
 260 NEXT H
 270 PRINT AT 10,4;"E    A    D
G    B    F    C"
 280 PRINT : PRINT "ALL YOU HAVE
 TO DO IS TYPE IN    THE CHORD YO
U WISH TO EXAMINE    FIRST"
 290 PRINT : PRINT "I SUGGEST TH
AT YOU EXAMINE THEM IN THE ORDER
 ABOVE AS SOME ARE  MORE COMPLIC
ATED THAN OTHERS"
 295 PRINT "MAKE SURE YOU ARE TY
PING IN     LOWER CASE LETTERS(l
ike this)"
 296 PRINT "TYPE 'q' TO LEAVE TH
E PROGRAM"
 300 CIRCLE 28,132,1: CIRCLE 32,
132,1: CIRCLE 36,140,1: BEEP .5,
-8
 310 CIRCLE 64,132,1: CIRCLE 68,
132,1: CIRCLE 72,132,1: BEEP .5,
-3
 320 CIRCLE 104,124,1: CIRCLE 10
0,132,1: CIRCLE 108,132,1: BEEP
.5,-10
 330 CIRCLE 120,124,1: CIRCLE 12
4,132,1: CIRCLE 140,124,1: BEEP
.5,-5
 340 CIRCLE 160,116,1: CIRCLE 16
4,116,1: CIRCLE 168,116,1: CIRCL
E 172,132,1: BEEP .5,-1
 350 CIRCLE 192,124,1: CIRCLE 19
6,132,1: CIRCLE 200,140,1: CIRCL
E 204,140,1: BEEP .5,-7
 360 CIRCLE 220,124,1: CIRCLE 22
4,132,1: CIRCLE 232,140,1: BEEP
.5,0
 400 INPUT "e,a,d,g,b,f,c OR q ?
";X$
 410 IF x$="e" THEN  CLS : GO TO
 500
 420 IF x$="a" THEN  CLS : GO TO
 800
 430 IF x$="d" THEN  CLS : GO TO
 900
 440 IF x$="g" THEN  CLS : GO TO
 1000
 450 IF x$="b" THEN  CLS : GO TO
 1100
 460 IF x$="f" THEN  CLS : GO TO
 1200
 470 IF x$="c" THEN  CLS : GO TO
 1300
 475 IF x$="q" THEN  GO TO 1500
 480 CLS : PRINT "REPLY ";X$;" N
OT UNDERSTOOD": PRINT "WE SHALL
START AGAIN AND GET IT RIGHT THI
S TIME": PRINT "Are you typing i
n lower case?": PAUSE 200: CLS :
 GO TO 20
 500 PRINT "THIS IS THE CHORD E"
 510 PRINT AT 2,13;"NUT"
 520 PRINT AT 6,13;"FRET 1"
 530 PRINT AT 10,13;"FRET 2"
 540 PRINT AT 14,13;"FRET 3"
 550 PRINT AT 18,13;"FRET 4"
 555 PLOT 12,153: DRAW 80,0
 560 LET X=12: LET Y=17
 565 FOR a=1 TO 6
 570 PLOT x,y: DRAW 0,136
 580 LET x=x+16
 590 NEXT a
 600 LET x=12: LET y=152
 610 FOR b=1 TO 5
 620 PLOT x,y: DRAW 80,0
 630 LET y=y-32
 640 NEXT b
 650 PRINT AT 21,1;"E A D G B E"
 660 PRINT AT 1,1;"6 5 4 3 2 1"
 661 IF x$="a" THEN  RETURN
 662 IF x$="d" THEN  RETURN
 663 IF x$="g" THEN  RETURN
 664 IF x$="b" THEN  RETURN
 665 IF x$="f" THEN  RETURN
 667 IF x$="c" THEN  RETURN
 670 CIRCLE 28,100,3: BEEP .5,-1
3: CIRCLE 44,100,3: BEEP .5,-8:
CIRCLE 60,132,3: BEEP .5,-4
 680 LET x=160: LET y=152
 690 FOR a=1 TO 5
 700 PLOT x,y: DRAW 95,0
 710 LET y=y-5
 720 NEXT a
 725 PLOT 156,0: DRAW 0,175
 730 PRINT AT 8,20;"NOTATION"
 740 PRINT AT 10,20;"2nd Finger"
: PRINT AT 11,20;"Plays a B"
 750 CIRCLE  FLASH 1; OVER 1;28,
100,3: BEEP 1,-13: PAUSE 50: CIR
CLE  OVER 1; FLASH 0;28,100,3
 760 PRINT AT 13,20;"3rd Finger"
: PRINT AT 14,20;"Plays an E"
 770 CIRCLE  FLASH 1; OVER 1;44,
100,3: BEEP 1,-8: PAUSE 50: CIRC
LE  OVER 1; FLASH 0;44,100,3
 780 PRINT AT 16,20;"1st Finger"
: PRINT AT 17,20;"Plays a G)"
 790 CIRCLE  FLASH 1; OVER 1;60,
132,3: BEEP 1,-4: PAUSE 50: CIRC
LE  OVER 1; FLASH 0;60,132,3
 795 CIRCLE 175,142,2: CIRCLE 19
2,149,2: CIRCLE 208,137,2
```




```
 796 PRINT AT 6,22;"B E G)": PRI
NT AT 4,27;")"
 799 GO TO 400
 800 CLS : GO SUB 510
 805 PRINT AT 0,0;"THIS IS THE C
HORD A"
 810 CIRCLE 44,100,3: BEEP .5,-8
: CIRCLE 60,100,3: BEEP .5,-3: C
IRCLE 76,100,3: BEEP .5,1
 820 PRINT AT 10,20;"2nd Finger"
: PRINT AT 11,20;"Plays an E"
 830 CIRCLE  FLASH 1; OVER 1;44,
100,3: BEEP 1,-8: PAUSE 50: CIRC
LE  OVER 1; FLASH 0;44,100,3
 840 PRINT AT 13,20;"1st Finger"
: PRINT AT 14,20;"Plays an A"
 850 CIRCLE  FLASH 1; OVER 1;60,
100,3: BEEP 1,-3: PAUSE 50: CIRC
LE  OVER 1; FLASH 0;60,100,3
 860 PRINT AT 16,20;"3rd Finger"
: PRINT AT 17,20;"Plays a C)"
 870 CIRCLE  FLASH 1; OVER 1;76,
100,3: BEEP 1,1: PAUSE 50: CIRCL
E  OVER 1; FLASH 0;76,100,3
 880 PLOT 156,0: DRAW 0,175
 890 LET x=160: LET y=152: FOR a
=1 TO 5: PLOT x,y: DRAW 95,0: LE
T y=y-5: NEXT a
 892 CIRCLE 172,132,2: CIRCLE 18
8,139,2: CIRCLE 204,144,2: PRINT
 AT 3,26;")"
 895 PRINT AT 7,21;"E A C)"
 899 GO TO 400
 900 CLS : GO SUB 510
 905 PRINT AT 0,0;"THIS IS THE C
HORD D"
 910 CIRCLE 60,100,3: BEEP .5,-3
: CIRCLE 76,68,3: BEEP .5,2: CIR
CLE 92,100,3: BEEP .5,6
```

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Access

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VISA

```
 920 PRINT AT 10,20;"1st Finger"
: PRINT AT 11,20;"Plays an A": C
IRCLE  OVER 1; FLASH 1;60,100,3:
 BEEP 1,-3: PAUSE 50: CIRCLE  OV
ER 1; FLASH 0;60,100,3
 930 PRINT AT 13,20;"3rd Finger"
: PRINT AT 14,20;"Plays a D": CI
RCLE  OVER 1; FLASH 1;76,68,3: B
EEP 1,2: PAUSE 50: CIRCLE  OVER
1; FLASH 0;76,68,3
 940 PRINT AT 16,20;"2nd Finger"
: PRINT AT 17,20;"Plays an F)":
CIRCLE  OVER 1; FLASH 1;92,100,3
: BEEP 1,6: PAUSE 50: CIRCLE  OV
ER 1, FLASH 0;92,100,3
 950 PLOT 156,0: DRAW 0,175
 960 LET x=160: LET y=152: FOR a
=1 TO 5: PLOT x,y: DRAW 95,0: LE
T y=y-5: NEXT a
 970 CIRCLE 172,139,2: CIRCLE 18
8,147,2: CIRCLE 204,152,2: PRINT
 AT 2,26;")"
 980 PRINT AT 7,21;"A D F)"
 990 GO TO 400
1000 CLS : GO SUB 510
1010 PRINT AT 0,0;"THIS IS THE C
HORD G"
1020 CIRCLE 12,68,3: BEEP .5,-17
: CIRCLE 28,100,3: BEEP .5,-13:
CIRCLE 92,68,3: BEEP .5,7
1030 PRINT AT 10,20;"2nd Finger"
: PRINT AT 11,20;"Plays a G": CI
RCLE  OVER 1; FLASH 1;12,68,3: B
EEP 1,-17: PAUSE 50: CIRCLE  OVE
R 1; FLASH 0;12,68,3
1040 PRINT AT 13,20;"1st Finger"
: PRINT AT 14,20;"Plays a B": CI
RCLE  OVER 1; FLASH 1;28,100,3:
BEEP 1,-13: PAUSE 50: CIRCLE  OV
ER 1; FLASH 0;28,100,3
1050 PRINT AT 16,20;"3rd Finger"
: PRINT AT 17,20;"Plays a G": CI
RCLE  OVER 1; FLASH 1;92,68,3: B
EEP 1,7: PAUSE 50: CIRCLE  OVER
1; FLASH 0;92,68,3
1060 PLOT 156,0: DRAW 0,175
1070 LET x=160: LET y=152: FOR a
=1 TO 5: PLOT x,y: DRAW 95,0: LE
T y=y-5: NEXT a
1080 CIRCLE 172,137,2: CIRCLE 18
8,142,2: CIRCLE 204,154,2
1090 PRINT AT 7,21;"G B G"
1095 GO TO 400
1100 CLS : GO SUB 510
1110 PRINT AT 0,0;"THIS IS THE C
HORD B"
1120 CIRCLE 44,36,3: BEEP .5,-6:
 CIRCLE 60,36,3: BEEP .5,-1: CIR
CLE 76,36,3: BEEP .5,3: CIRCLE 9
2,100,3: BEEP .5,6
1130 PRINT AT 10,20;"2nd Finger"
: PRINT AT 11,20;"Plays an F)":
CIRCLE  OVER 1; FLASH 1;44,36,3:
 BEEP 1,-6: PAUSE 50: CIRCLE  OV
ER 1; FLASH 0;44,36,3
1140 PRINT AT 13,20;"3rd Finger"
: PRINT AT 14,20;"Plays a B": CI
RCLE  OVER 1; FLASH 1;60,36,3: B
EEP 1,-1: PAUSE 50: CIRCLE  OVER
 1; FLASH 0;60,36,3
1145 PRINT AT 17,20;"4th Finger"
: PRINT AT 18,20;"Plays a D)": C
IRCLE  OVER 1; FLASH 1;76,36,3:
BEEP 1,3: PAUSE 50: CIRCLE  OVER
 1; FLASH 0;76,36,3
1150 PRINT AT 20,20;"1st Finger"
: PRINT AT 21,20;"Plays an F)":
CIRCLE  OVER 1; FLASH 1;92,100,3
: BEEP 1,6: PAUSE 50: CIRCLE  OV
ER 1; FLASH 0;92,100,3
1155 PLOT 156,0: DRAW 0,175
1160 LET x=160: LET y=152: FOR n
=1 TO 5: PLOT x,y: DRAW 95,0: LE
T y=y-5: NEXT n
1170 CIRCLE 172,134,2: CIRCLE 19
6,142,2: CIRCLE 212,147,2: CIRCL
E 232,152,2
1180 PRINT AT 7,21;"F) B D) F)"
1190 GO TO 400
1200 CLS : GO SUB 510
1210 PRINT AT 0,0;"THIS IS THE C
HORD F"
1220 CIRCLE 44,68,3: BEEP .5,-7:
 CIRCLE 60,100,3: BEEP .5,-3: CI
RCLE 76,132,3: BEEP .5,0: CIRCLE
 92,132,3: BEEP .5,5
1230 PRINT AT 10,20;"3rd Finger"
: PRINT AT 11,20;"Plays an F": C
IRCLE  OVER 1; FLASH 1;44,68,3:
BEEP 1,-7: PAUSE 50: CIRCLE  OVE
R 1; FLASH 0;44,68,3
1240 PRINT AT 13,20;"2nd Finger"
: PRINT AT 14,20;"Plays an A": C
IRCLE  OVER 1; FLASH 1;60,100,3:
 BEEP 1,-3: PAUSE 50: CIRCLE  OV
```

```
   5 GO TO 200
  10 PAPER 7: BORDER 6: INK 6: C
LS
```

MOUSE AI

TOM LEINSTER

In Mouse AI the idea is to create a maze from which a tiny mouse cannot escape! Type it in, and see if you can fool the deductive rodent! The mouse itself is claimed by its author to be 'intelligent' — some artificial intelligence has been built into its search behaviour.

With character graphics, follow the instructions for Boggle. **Also, UDG's are denoted by a capital letter, underlined, for example M**

```
  15 DIM a$(22,32)
  18 FOR f=1 TO 22: IF f<3 OR f>
20 THEN  PRINT  PAPER 6; INK 1;"
LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
": GO TO 25
  20 PRINT  PAPER 6; INK 1;"LL";
 INK 1;"(29*G8)"; PAPER 6; INK 1
;"LL"
  25 FOR n=1 TO 32: LET a$(f,n)=
CHR$ 255: NEXT n: NEXT f
  28 INK 1
  30 LET a=19: LET b=2
  40 PRINT AT a,b;" ";AT a,b;" "
  50 LET a=a+(INKEY$=CHR$ 10 AND
 a<19)-(INKEY$=CHR$ 11 AND a>2)
  60 LET b=b+(INKEY$=CHR$ 9 AND
b<29)-(INKEY$=CHR$ 8 AND b>2)
  70 LET a$(a,b)=" ": IF a<>2 OR
 b<>29 THEN  GO TO 40
  75 PRINT AT a,b;" "
  80 LET a=19: LET b=2
  90 PRINT  INK 2;AT a,b;"M"
  92 LET a$(a,b)=CHR$ (CODE a$(a
,b)+1)
  95 IF a=2 AND b=29 THEN  STOP
  99 INK 3
 100 IF a$(a,b+1)<=a$(a-1,b) AND
 a$(a,b+1)<=a$(a+1,b) AND a$(a,b
+1)<=a$(a,b-1) THEN  PRINT AT a,
b;" ": LET b=b+1: GO TO 90
 110 IF a$(a-1,b)<=a$(a+1,b) AND
 a$(a-1,b)<=a$(a,b+1) AND a$(a-1
,b)<=a$(a,b-1) THEN  PRINT AT a,
b;" ": LET a=a-1: GO TO 90
 120 IF a$(a,b-1)<=a$(a-1,b) AND
 a$(a,b-1)<=a$(a+1,b) AND a$(a,b
-1)<=a$(a,b+1) THEN  PRINT AT a,
b;" ": LET b=b-1: GO TO 90
 130 PRINT AT a,b;"D": LET a=a+
1: GO TO 90
 200 FOR f=0 TO 7: READ x: POKE
USR "m"+f,x: NEXT f
 210 FOR f=0 TO 7: READ x: POKE
USR "l"+f,x: NEXT f
 220 FOR f=0 TO 7: READ x: POKE
USR "d"+f,x: NEXT f
 230 BORDER 0: INK 7: PAPER 0: C
LS
 240 PRINT '"              LMAZE MOU
SEL"'''"  You create  a maze us
ing  the"
 250 PRINT '"cursor  keys,  star
ting  at  the"''"bottom-left cor
ner and ending at"
 260 PRINT '"the  top-right. As
soon  as  you"''"reach the end,
the Maze Mouse (a"
 270 PRINT '"red M) will  start
to solve  the"
 280 PRINT '"maze, leaving a tra
il of magenta"''"dots behind it.
"''"      LPRESS ANY KEY TO START
L"
 290 PAUSE 0
 300 GO TO 10
1000 DATA 0,0,64,128,176,122,255
,72
1010 DATA 255,145,189,167,229,18
9,137,255
1020 DATA 0,0,0,24,24,0,0,0
```

```
ER 1; FLASH 0;60,100,3
1250 PRINT AT 16,20;"1st Finger"
: PRINT AT 17,20;"Plays a C": CI
RCLE  OVER 1; FLASH 1;76,132,3:
BEEP 1,0: PAUSE 50: CIRCLE  OVER
 1; FLASH 0;76,132,3
1260 PRINT AT 19,20;"1st Finger"
: PRINT AT 20,20;"Plays an F": C
IRCLE  OVER 1; FLASH 1;92,132,3:
 BEEP 1,5: PAUSE 50: CIRCLE  OVE
R 1; FLASH 0;92,132,3
1270 PLOT 156,0: DRAW 0,175
1275 LET x=160: LET y=152: FOR n
=1 TO 5: PLOT x,y: DRAW 95,0: LE
T y=y-5: NEXT n
1280 CIRCLE 172,134,2: CIRCLE 18
8,139,2: CIRCLE 204,144,2: CIRCL
E 220,152,2
1290 PRINT AT 7,21;"F A C F"
1295 GO TO 400
1300 CLS : GO SUB 510: PRINT AT
0,0;"THIS IS THE CHORD C"
1310 CIRCLE 28,68,3: BEEP .5,-12
: CIRCLE 44,100,3: BEEP .5,-8: C
IRCLE 76,132,3: BEEP .5,0
1320 PRINT AT 10,20;"3rd Finger"
: PRINT AT 11,20;"PLays a C": CI
RCLE  OVER 1; FLASH 1;28,68,3: B
EEP 1,-12: PAUSE 50: CIRCLE  OVE
R 1; FLASH 0;28,68,3
1330 PRINT AT 13,20;"2nd Finger"
: PRINT AT 14,20;"Plays an E": C
IRCLE  OVER 1; FLASH 1;44,100,3:
 BEEP 1,-8: PAUSE 50: CIRCLE  OV
ER 1; FLASH 0;44,100,3
1340 PRINT AT 16,20;"1st Finger"
: PRINT AT 17,20;"Plays a C": CI
RCLE  OVER 1; FLASH 1;76,132,3:
BEEP 1,0: PAUSE 50: CIRCLE  OVER
 1; FLASH 0;76,132,3
1350 PLOT 156,0: DRAW 0,175: LET
 x=160: LET y=152: FOR n=1 TO 5:
 PLOT x,y: DRAW 95,0: LET y=y-5:
 NEXT n
1360 CIRCLE 172,127,2: CIRCLE 18
8,132,2: CIRCLE 204,144,2
1370 PRINT AT 8,21;"C E C"
1380 GO TO 400
1500 FOR n=1 TO 4: BEEP .3,n*2:
NEXT n:  PAUSE 70: CLS : PRINT "
IN THIS PROGRAM WE HAVE LOOKED
AT THE LEFT HAND ONLY"
1510 PRINT "MAKE SURE THAT YOU K
NOW THE       CHORDS THAT YOU HAVE
 JUST SEEN    AND KEEP PRACTICING
THEM.          REMEMBER THAT PRACTI
CE MAKES       PERFECT"
1520 PRINT : PRINT "IF YOU WANT
ANOTHER PROGRAM TO   EXPLAIN THE
USE OF THE RIGHT     HAND,PLEASE
WRITE IN AND ASK.    IF THERE IS
ENOUGH RESPONSE I    WILL WRITE A
NOTHER PROGRAM IF    THE EDITOR I
S WILLING TO BUY IT."
1530 PRINT : PRINT : PRINT "GOOD
BYE"
1560 STOP
```

SINCLAIR USER COMPETITION

WIN A CHESS COMPUTER!



Ever fancied a real Chess Computer? One of those neat little portable jobs that can humiliatingly defeat you on trains, in cars, at sea — wherever?

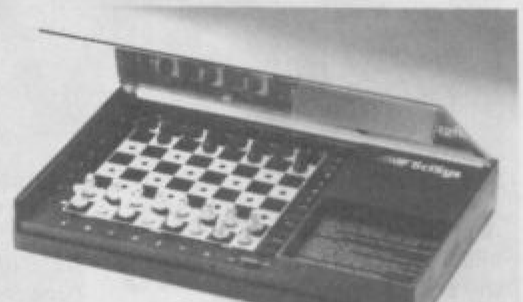
We have one Travel Mate 2 chess computer and ten copies of CDS's **Colossus 4** Chess program for the Spectrum or QL to give away in this high-brow competition. (We've got to restore some credibility after the Spot the Editor compo last month.)

What you have to do

Below are a series of chess terms. One isn't entirely genuine. All you have to do is say which one

A En passant
B Fools Mate
C Castling
D Exchange of Pawns
E Knights Leap

**Anyone connected with EMAP or CDS may not enter. Checkmate*



Send your answer* to Colossus Chess Compo, Sinclair User, 30/32 Farringdon Lane, London EC1R 3AU. Closing date is December 21

Name..................................
Address ....
....
....

Do you want the Spectrum or QL version of Colossus 4

QL ☐ Spectrum ☐

My answer: the false term is letter

....

BASIC COMPILER

TOOL-KIT

ORG	60000
LOAD	60000
LD	IX,(23563)
LD	E,(IX+4)
LD	D,(IX+12)
LD	C,(IX+20)
LD	B,(IX+28)
LD	A,(IX+36)
PUSH	AF

REVIEW

Is your Basic boring? Do your programs dawdle through data, and saunter through subroutines? Perhaps Hisoft has the answer with its **Basic Compiler.**

You know Basic. Great fun to dabble with, but a bit lacking in the speed department. Compared to the Ferrari of machine code, Basic is a 2CV. There's nothing you can do in the former you can't do in the latter, but boysoboys, what you do, you do faster. And with style.

Basic, as found on your Spectrum, is slow for a number of reasons. The biggest problem is the way in which the computer deals with the program. For each line of Basic, the machine laboriously works out its meaning, what memory to use and how it all links in with what's gone before. Then, and only then, the computer knows enough to obey the instructions on that line. If it ever goes back to that line, which in a program with *Gotos, Gosubs* and *For…Nexts* it will, it has to carry out all that work again, before it can produce a result.

So, short of diving into the horrors of hexadecimal, how do you speed things up?

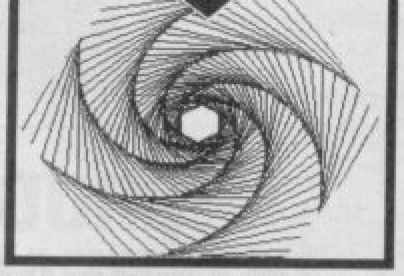
The answer is a compiler. A compiler goes through a Basic progam and does all the checking and translating. Instead of then running the results, it stores them as machine-code commands in an area of memory. When the time comes, the user (that's you) treats the compiled program like a pure machine-code program. As all the checking's been done once and for all, the program runs much faster.

There have been Spectrum compilers about for a while. Unfortunately, they've traditionally been restricted by their inability to cope with various commands, forcing the user to modify programs to take account of their limitations.

This HiSoft Basic compiler is (almost) innocent of such sins. You load it in, load or type in just about any Basic program, and utter the appropriate magic words '*C'. A few seconds later, you have a machine-code program that does everything your Basic did, but faster.

```
  1 REM : int + cx,cy,j,i
 10 REM : OPEN £
 15 CLS
 20 LET c=COS (PI/3)
 30 LET s=SIN (PI/3)
 40 LET c1=COS (PI/36)
 50 LET s1=SIN (PI/36)
 60 LET sf=.95
 70 LET x=95
 80 LET y=0
 90 LET cx=130
100 LET cy=88
110 LET sc=1.16
120 FOR j=1 TO 43
130 FOR i=0 TO 6
140 LET sx=x*sc+cx
150 LET sy=cy+y
160 IF i=0 THEN GO TO 190
170 PLOT sx1,sy1
180 DRAW (sx-sx1),(sy-sy1)
190 LET sx1=sx: LET sy1=sy
200 LET xn=x*c-y*s
210 LET y=x*s+y*c
220 LET x=xn
230 NEXT i
240 LET xn=sf*(x*c1-y*s1)
250 LET y=sf*(x*s1+y*c1)
260 LET x=xn
270 NEXT j
280 STOP
285 REM : close £
290 SAVE "SPIRAL"
```

SINCLAIR USER CLASSIC



▲ Pattern produced in 35 seconds in Basic ● Cut down to under 10 seconds when the same program is compiled

How much faster depends on a lot of things. If your program depends heavily on Rom-based graphics commands like *Circle* or *Draw*, then you can only expect a three- to ten-fold increase in speed. But if it spends a lot of time doing simple maths, or string handling, the acceleration can be breathtaking. HiSoft supply a set of demo programs, including one called 'Sieve'. This is a standard benchmark for compilers, as it works with simple numbers in a way which any compiler worth its salt should really go to town on. HiSoft Basic's compiled version goes more than 150 times faster than unaided Basic. That's fast.

There are commands which the compiler can't deal with. Mostly these are 'system' commands, like *Save, Load, Clear* and so on.

To tell the compiler to start compiling a section of your program, include a line *Rem : Open #*. The line *Rem : Close #* stops the compiler producing code. For every *Open # — Close #* pair a chunk of machine code is generated, and the compiler prints the start address of that section. Replace the Basic sections with *Randomize Usrs* of the appropriate address, and it all works.

The only serious omissions are some of the naughtier things you can do with arrays, and the ability to compile *Val A$* (although *Val A$* '2314' is OK). This function is very useful, and can be difficult to replace by other bits of Basic.

The manual is good. There's a short tutorial, which works with the example programs provided, and several reference sections covering commands, memory maps and errors.

The size of the compiled code is bigger than the Basic program which spawned it. This is because the code needs some support software (known as run-time routines) but HiSoft Basic does its level best to minimize the problem. Some compilers load in the complete set of routines for every program. HiSoft **Basic Compiler** just uses the relevant ones.

It allows you to select just the right way to deal with a variable, so if a variable will never be a number with a decimal point in it, then you can tell the compiler to store it in an efficient format. The compiler can look through a program while it runs, and tell you which variables are candidates for this treatment. Other things the compiler itself looks for include divide and multiply by two, as commands such as these can be coded into very fast machine language indeed.

The compiler takes three passes through the Basic program to produce its result. During each pass, it uses the screen memory to hold information and lists. This is quite a good idea, as after a while it's possible to judge what's going on by looking at the dots and colours whizz past, but to the uninitiated it does look horribly like a crash.

Does it work? I dug out my stock of Basic programs (on WH Smith C15 tapes!), and ran them through the mill. On average, it took about ten minutes to convert and produce an efficient compiled version, and nothing proved uncompilable.

Very impressive. The **Breakout** game on the old Spectrum **Horizons** tape ran far too fast to even see, let alone play…

You get two compilers on two tapes for your money in the videotape size pack. The 48K version is about 10K long (leaving room for roughly 30K of Basic), and uses direct commands prefixed by a *. The 128K+2 version is a bit more subtle.

It has about 500 bytes of program in the Basic area, but mostly lives in the silicon disc, thus leaving around 40K of room for your evil doings. It has a menu system for commands, brought into life by pressing *True Video* and *Inv Video* at the same time. These keys are also used as special shifts in conjunction with the cursor keys to duplicate the elusive keypad's editing functions. Don't try bringing up the compiler menu when the Basic's *Option* menu is up, as things can get confused! Both versions transfer to Microdrive with the minimum of fuss.

FACTS BOX

If you ever write anything in Basic or machine-code this program is a must. It works like magic. Buy it.

★★★★★

BASIC COMPILER
Label: HiSoft
Author: in-house
Price: £15.95
Memory: 48K/128K
Reviewer: Rupert Goodwins

The only reason I can think of for you not buying this program is if your knowledge of Basic goes no further than *Load ""*. Even if you know Z80 machine-code backwards, the compiler lets you cook up a concept in Basic, debug it and then commit it to code fast enough to make dabbling a delight.

And for those who know Basic and type in the odd listing or two, this compiler must be nigh on invaluable.

Don't expect to rewrite *Elite*, but Basic is fun again ■

STAR RAIDERS II

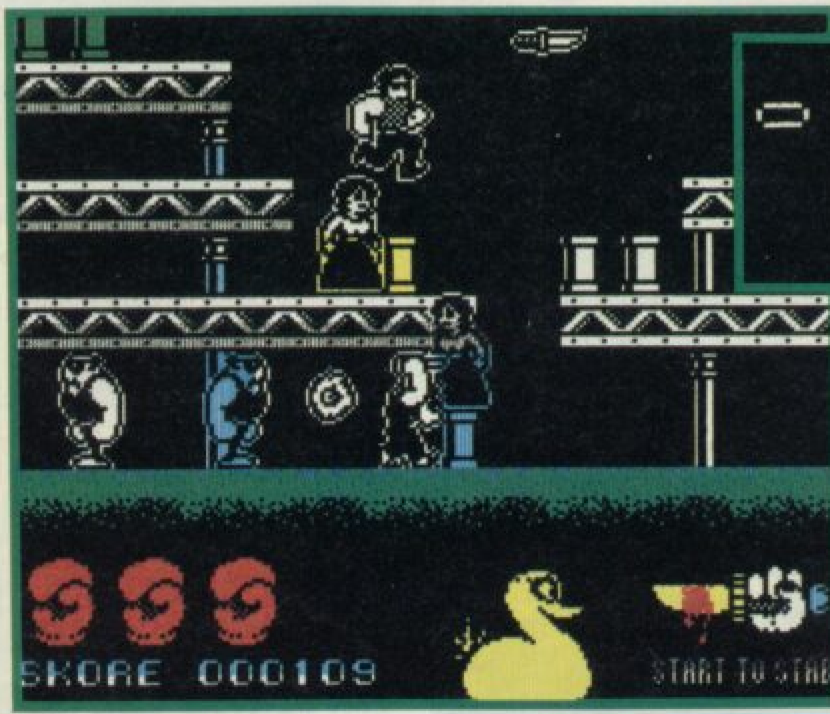
Hold the 'phone! Electric Dreams has licensed the sequal to the coin-op giant Star Raiders (innovatively called Star Raiders II).

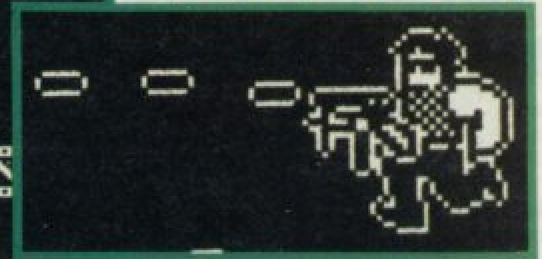
As the hottest pilot in the galaxy it's your job to defend the Celos IV star system from the evil Zylons, led by the dreaded Zylon master Chut (Chut by name and Chut by nature). If you fail, the attacking Zylons will wreak havoc on the defenceless Celos IV which seems a shame.

If you beat off the attacking Zylons, you'll have to follow them into deep space, to prevent them from encroaching further into your galaxy. Your best bet is to find and destroy the Zylon bases. Shoot first and ask questions afterwards.

This one-player game is a classic shoot 'em up. Eyes down, fingers on the button — this one is going to be a hit . . .

Streetdate: November. Price: £9.99





OCEAN COBRA

Cobra, the game of the film, is due soon from US Gold. It looks to be a sort of larger sprite version of Green Beret. Stallone is a large thuggish looking gun-wielding psychopath who leaps around a lot. Like the film, part of the game objective is to protect a helpless woman from gangs of criminals. Mostly however its about killing things a lot.

The demo vursion looked quite impressive with smooth animation of the large characters.

Streetdate: November. Price: £7.95

RAM JAM DREAM'S EXPLORER

The Ram Jam Corp has been known to promise more than the team can deliver — whatever happened to Three Days in Carpathia, boys?

So let's hope we see a finished version of their latest of Explorer soon.

Anyway, the Microdrive cassette I was given contained only the basics of a game which could either be great. Or terrible.

You've crashlanded on a lush, tropical world. Foolishly, you've allowed your space-ship to break up into its component parts. To leave again, you have to find them all and reassemble your vehicle. Sounds really innovitive doesn't it. Actually it is a lot more interesting than it sounds.

You may have lost your ship, but you can still fly around. You get an aerial view of the planets surface; it's covered with seas, grassy plains, jungles and villages.

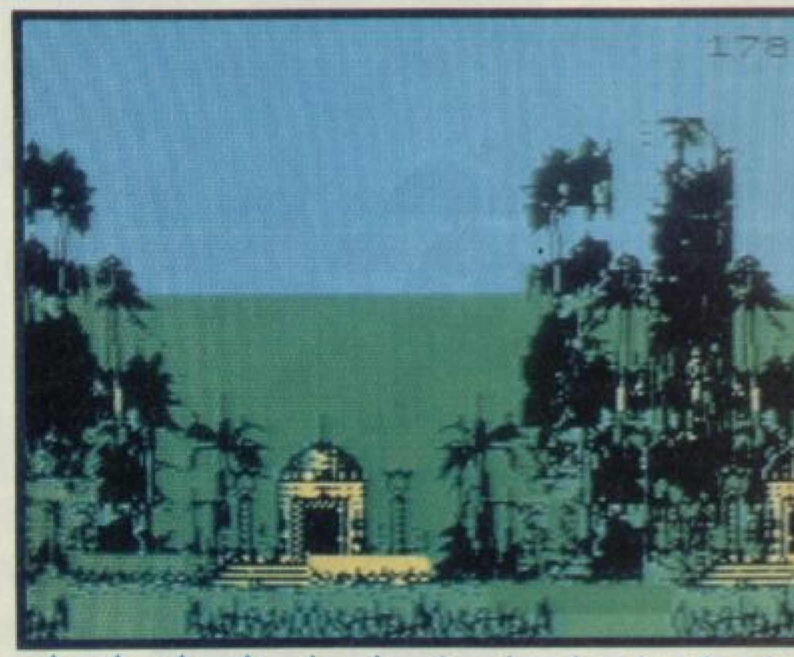
If you decide to land, you get a Lords of Midnight-style graphics view of a landscape. You also get shown your compass bearing. You can pan left or right, or look behind you. The graphics are very detailed, full of palm-like trees, creepers, native huts, what could be temples, and strange rock formations that seem to have figures burried in them. Very creepy, very atmospheric.

Hit a key to call up a menu. You can shoot things — funny little black grasshoppers whizz about occassionally — or drop beacons which help you get your bearings.

And that's about it so far. Somehow it seems like just the bare bones of a game, but it's difficult to work out what else is going to be added to it.

If the RamJam team can build on this skeleton — and they've done some ace games in the past — then Explorer is going to be a classic.

Streetdate: November. Price: £7.99



MAD TERMINUS

Terminus is a new game from Mastertronic on the MAD £2.99 label. From the screen shots it looks very impressive but this has long been proved to be a most unreliable guide.

Anyway, its some sort of complex maze/rescue game sounding a bit like Shadowfire. You have a team of four — pros, each with specialist skills — and have to use them to rescue the brain of the elder (it's in prison.) What you do with the brain once you've got it I have no idea. Perhaps it would make a nice ornament for the mantlepiece.

Streetdate: end of November. Price: £2.99.





They Sold a Million 3 is yet another compilation tape, this time from Ocean.

What is it about 1986 that has sent software houses scurrying to put out collections of previous games? Is it because they're there and nobody can work out what to do with them?

The star game on The Sold a Million 3 must be Activision's Ghostbusters. Remember the music 'Who you gonna call? . . . Ghostbusters!" Great film. Good game on the C64 — OK-ish on the Spectrum.

Digital Integration's Fighter Pilot is the other program worth looking out for on the tape — it's a really good flying simulation.

And with US Gold's Kung Fu Master (not so good) and Ocean's Rambo (acceptable) also on the tape this is one of the better collections.

Streetdate: October 13. Price: £9.95

BIG TERROR IN TERRA CRESTA

Terra Cresta is an arcade game I can barely remember even having seen. It was, logically enough the follow up to Moon Cresta and involves destruction on a grand scale.

The game, faithfully recreated by Ocean features some complicated alien attack patterns and was always regarded by afficiandos as a rather superior Zap 'em Up.

Streetdate: November. Price: £7.95





compiled by Brendon Gore



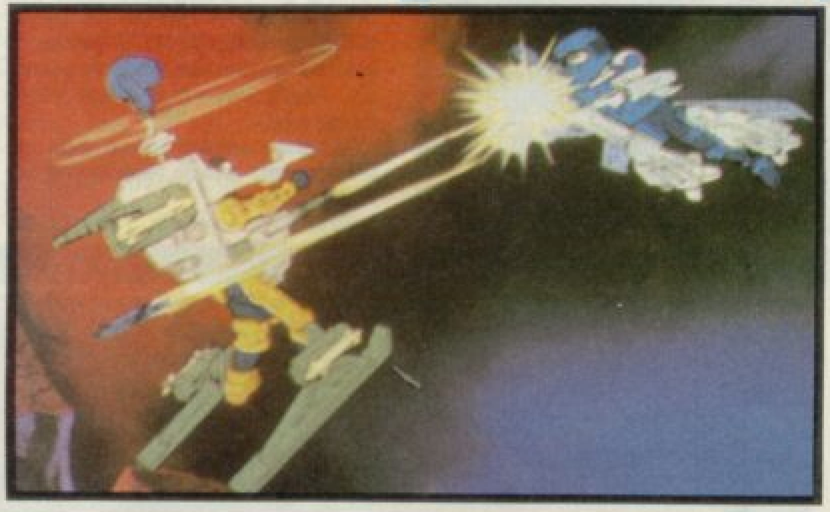
Centurians, the Saturday morning ITV cartoon strip is being made into a cartoon-style arcade game by Ariolasoft's Reactor label.

It's tricky to explain about the Centurians 'cause I'm never up at that time in the morning.

Anyway, it seems evil Doc Terror has the world in his grasp again (I missed it the first time — must have been too early on Saturday). And only the Centurians can save the world from his dastardly plot.

For reasons best known to himself, Doc Terror is planning to melt the polar icecap (maybe he likes swimming) and drown the world's population. The Centurians must find Doc's base and stop him. Otherwise where will the penguins go? I made that bit up. Who cares about the penguins?

Streetdate: December. Price: £8.95





ZAP ACADEMY

Zap those aliens? Check for damage, fire lasers, bombs away.

Academy — Tau Ceti II, from CRL, is a classic shot 'em up in the mould of the original Tau Ceti.

You're in your skimmer choosing from up to 20 different missions with varying levels of difficulty.

The basic scenario is the same . . . clear an alien planet of assorted nasties before they zap you into a million pieces.

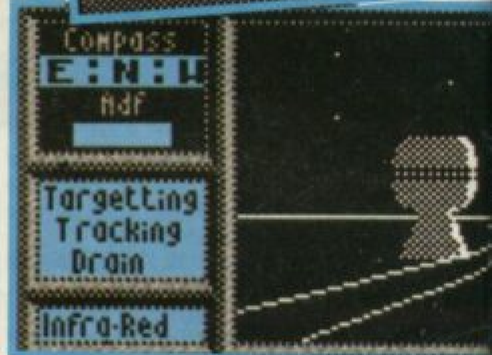
It's great. You even get a choice of skimmers, or you can design your own, within predefined limits. Thus you can have low, medium or heavy shielding, lasers and missiles, delayed action bombs, infra-red scanners and a load of other goodies which you bolt on and go. You can't have all of them on the same skimmer so you've got to establish your priorities.

Depending on the mission, you may face hoppers, towers or flying saucers, not to mention electrical storms, minefields and energy absorbing aliens.

Programmed by Peter Cooke, Tau Ceti II is as devastatingly addictive and intricate as Part I.

Streetdate: November. Price: £9.99







TEMPEST KICKS UP A STORM

This one is a bit of a cult among arcade fans.

Tempest, the official version from Electric Dreams, is an excruciatingly fast, reflex challenging version of the coin-op original.

Zoom through three-dimensional grids into interstellar space and you will be attacked by strange creatures creeping out of wormholes in the hyperspatial wireways. Luckily, you just happen to have your trusty pulser plasma zapper at your side. Just the thing for knocking out any fuseballs, flippers, spikes and pulsars which get in your way.

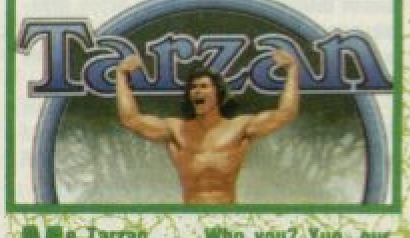
You even have a weapon of last resort. If you are really in trouble, surrounded by green nasties and assorted scuzzballs, just use your super zapper. This clears everything on the screen and gives you a moment's respite before the nasties start up once again.

Actually, it's geometric ships, moving so fast, will make your head spin. The original Atari coin-op was — and still is — a classic.

Electric Dreams is obviously fond of arcade conversions. What's more important, they are good at them.

Keep 'em coming.

Streetdate: October. Price: £9.99



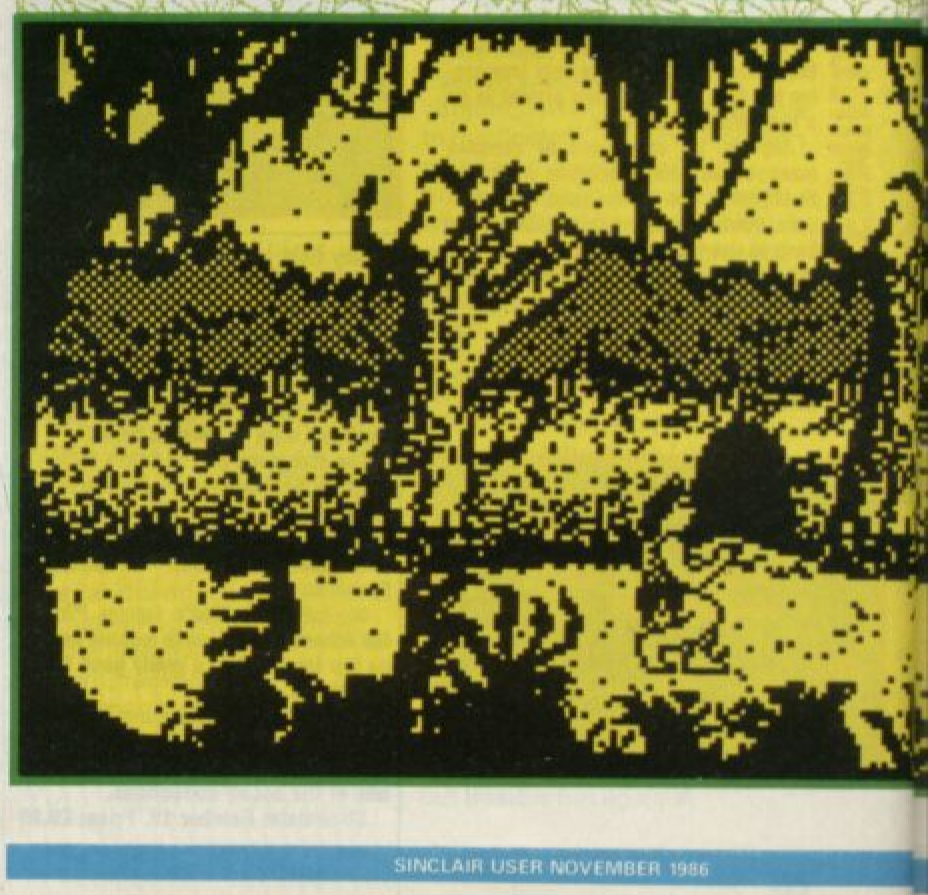
Me Tarzan . . . Who you? Yup, our vine clinging hero is making the transition from the big screen to the micro.

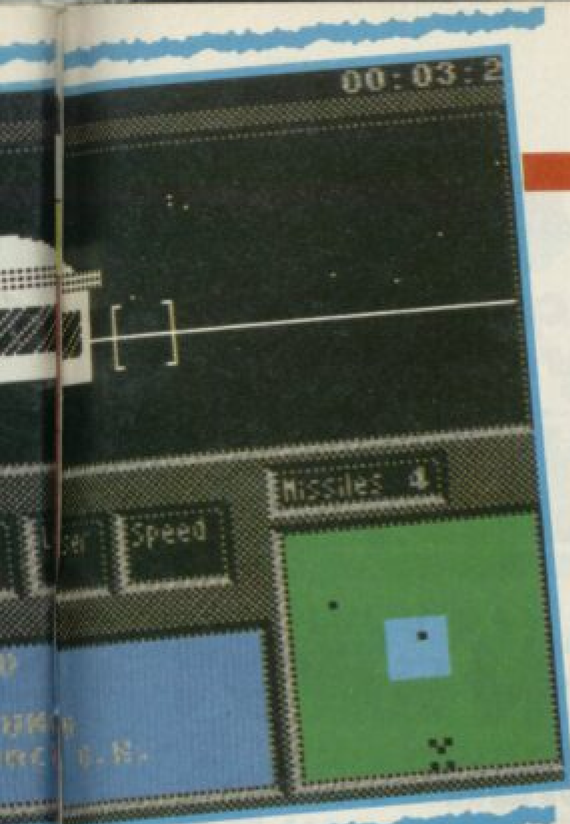
Edgar Rice Burroughs' legendary hero, aka Lord Greystoke, is searching for Jane (not still?), who has been kidnapped by unfriendly natives.

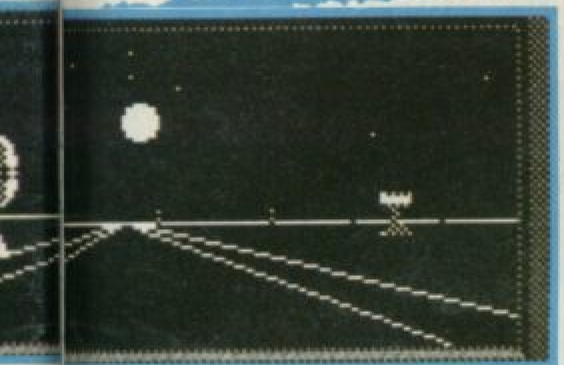
In the Martech program Tarzan — like Fist — can run, jump, somersault, swing from vines and indulge in fierce hand-to-hand combat, all under joystick control.

Jane has been taken to the natives' village hidden in the depths of the jungle and Tarzan must explore the jungle and overcome a multitude of hazards before finding her. Other dangers Tarzan stumbles upon are lions, quicksand, booby-traped temples and a massive cave complex in which he can get lost.

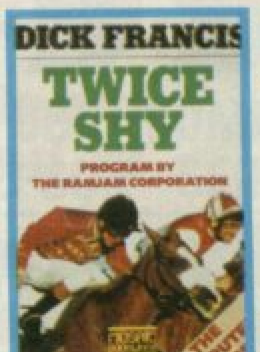
The game takes place over three game days. Not real days! It's just that night and day come and go as you play the game. Tarzan operates both day and night and finds that some hazards are strictly nocturnal. If Tarzan takes

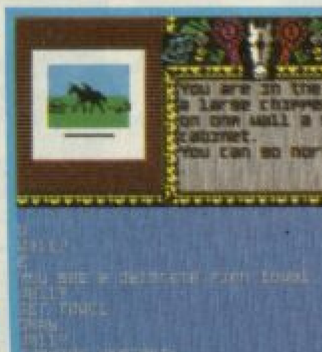






PREVIEW





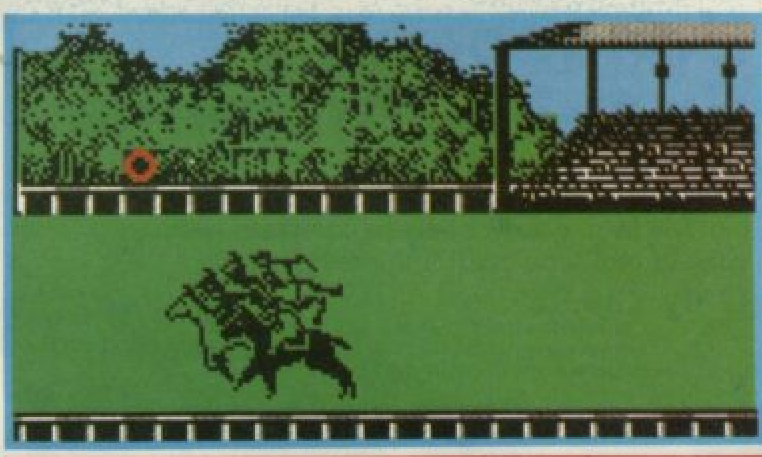
Twice Shy, from Mosaic, is based arond the Dick Francis thriller novel of the same name. Gambling on the horses is the area we're in. Riders, bookies and villains rub shoulders in a world familiar to all Dick Francis fans.

It's a graphic adventure. You play the role of teacher, Jonathan Derry. Your first problem is to discover who owns the computer tapes which have come into your possession and why the heavy mob will stop at nothing to get hold of them. It might help if you could work out what the tapes are for — perhaps a computer would help? Perish the thought!

The game also — curiously — contains a horse racing simulation. This is an integral part of the adventure, but it can be played as a separate game if you are fond of chancing your arm on the horses.

You need money (who doesn't?) to progress in the game and betting on the horses is the way to get it. So like life isn't it? The trick is to make sure that the odds are in your favour.

Streetdate: October. Price: £9.95



MORE THRUST

Thrust is just one of those words, isn't it. Images of violence, destruction and all sorts. It's just not a genteel term is it?

That's probably why Firebird has chosen it from all the others in the Oxford English Dictionary for its new shoot 'em up. You have a space ship. And a gun. And a limited amount of fuel. Pick up Klystron pods (which sound like some form of medication and which look like a ball and chain) with a tractor beam. Pick up a pod and your ship is carrying a dead weight behind it swinging out of control with the direction of thrust.

Klystron pods tend to be guarded by a limpet gun. You score 750 points for destroying the limpet gun which then leaves the way clear for you to collect the pod. Unfortunately, you can only fire in the direction the ship is facing. Since the limpet gun is on the planet's surface, that's the direction you have to point your ship. Crashes are not uncommon until you get the hand of hovering, flipping the ship downwards firing and then pulling up immediately.

There's a nuclear power plant on the planet's surface. Firing shots at the power plant temporarily disables the limpet guns. But, firing enough shots into the reactor sends it critical, giving you just 10 seconds to clear the planet.

The most difficult part is hovering in a confined space and attempting to lift the Klystron pod up a narrow corridor.

And just when you think you are starting to get to grips with it, another small feature comes to light . . . reverse gravity. Suddenly, all the controls work in reverse. Except reverse — that's forward.

Streetdate: October. Price: £1.99

longer than three days to rescue Jane, her captors will dispose of her in some fashion far too ghastly to even contemplate.

It looks like making a map will prove to be essential to avoid getting completely lost in the jungle.

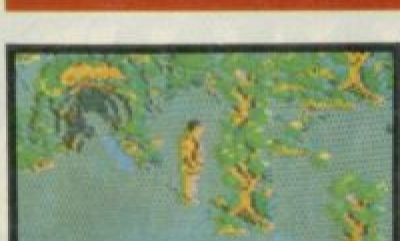
The original novel, written in 1911, has lasted remarkably well. Thirty-six films and both radio and TV series have followed the book.

Seventeen different actors have played Tarzan on film, from Elmo Lincoln in *Tarzan of the Apes* to Christopher Lambert in *Greystoke*.

Now, the loinclothed apeman has made to the Spectrum there will be no stopping him.

Streetdate: November. Price: £7.95





INFERNO OUT

Burn, baby, burn! Dante's Inferno — Beyond's latest animated adventure — follows Pilgrim and his descent through debilitating depravity and the nine circles of hell to his final confrontation with Lucifer. Actually, this is the second crack at Dante's opus — Phipps Associates once did an adventure based on it.

The thing's being programmed by Denton Designs — of Shadowfire fame — so the plot looks like being interestingly treated.

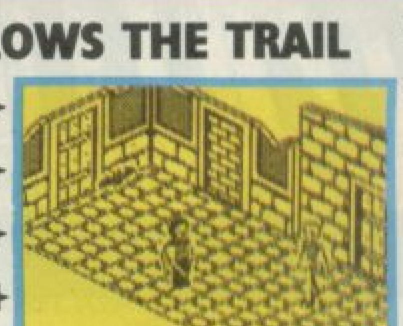
On each level of hell you meet a new collection of miserable sinners all doomed to eternal damnation. In the first, Pilgrim must avoid demons armed with whips (flailed again). And then there are hurricanes, black dogs, a forest of suicide and Medusa the Gorgan.

Then it's face to horns with Lucifer embedded in a lake of ice. Work out how to get past Lucifer, and you can escape to Purgatory.

Pilgrim has seven days in which to complete his task. Any longer and he'll be forced to join hell's other residents.

Streetdate: December. Price: £9.95

FAIRLIGHT FOLLOWS THE TRAIL



Fairlight II — Trail of Darkness is Bo Jangeborg's follow-up to Fairlight I.

It picks up where The Edge's first adventure finished, with Isvar standing outside the castle of Avars. Isvar has just made the mistake of giving the Book of Light to the Lord of Darkness. Dumb move! Dumb plot, too, saved by the game which looks great.

The game is in two parts. In the first part, Isvar has to negotiate his way through a fearsome forest and a sun drenched seashore and find a ship. Look out for wolves, pirates and trees (Trees? What's wrong with trees?)

In the second part, Isvar sails off to the mountain stronghold of 'you know who' where caves and beasties abound.

A heroine is hidden away in the adventure, waiting to be rescued and once Isvar has freed her, you can assume either character for the rest of the adventure — there are some parts of the game which Isvar can't complete on his own. Whatever that means.

The graphics and gameplay of the original Fairlight were brilliant — Alien-8 gets serious and medieval and Fairlight II is more of the same

Streetdate: October. Price £9.95.



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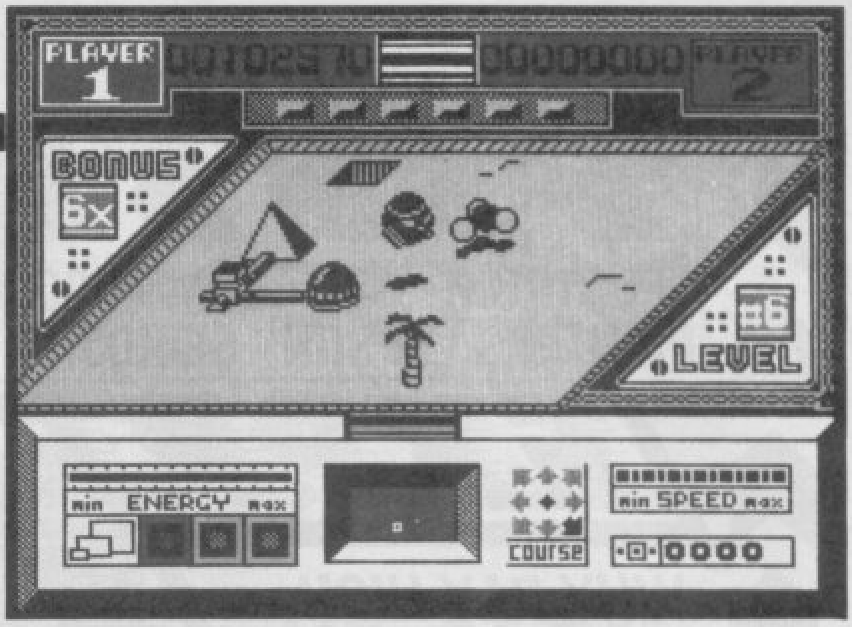
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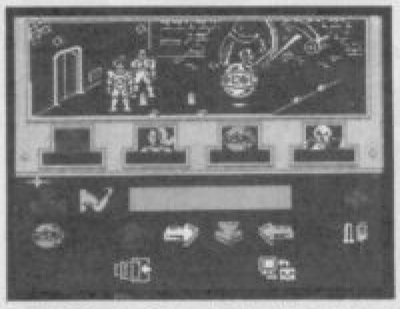
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PREVIEW





BEST OF BEYOND

Christmas time is compilation time. Whooo-weee! Faaanttastic!!

And the Best of Beyond **is a compilation tape of four action packed strategy/adventure games —** Shadowfire **and** Enigma Force **by Denton Designs,** Sorderon's Shadow **and** Doomdark's Revenge**.**

Shadowfire**, is the real mega hit of the four. In its day it claimed to be the world's first icon-driven adventure. Rescue Ambassador Kyrixix from the traitor General Zoff with a team comprising humans, droids, an insectoid called Syylk and an Avain called Torik.**

Enigma Force**, the sequal to** Shadowfire**, is easier to play. The same team, having captured the evil General Zoff have let him escape (more of a Z-team than an A-team). Now they have to find him again, locate the only usable spacecraft and get off the planet fast.**

Sorderon's Shadow **is a more traditional adventure.**

Doomdark's Revenge**, the follow-up to** Lords of Midnight**, was an immediate hit when launched and it's still a classic. Luxor, Rotheron and Tarithel have entered the chill world of Icemark, searching for Morkin.**

All-in-all, quite a collection, though I'm not sure it deserves the accolade 'Best of Beyond'. But then 'Quite good of Beyond' doesn't sound the same.

And all this Lord of Zebadora rubbish can really get ya' down!

Streetdate: October. Price: £9.95

SAM CRUISE

'Dis broad walked in off de street and started crying on ma shoulder. What could I do? I pulled a grimey sweat-stained handkerchief form ma top pocket and told her to blow.

'Jus' another hard luck story . . . I musta heard 'em all. But, she seemed like a nice kid, and I hadn't eaten in a week. Two hundred dollars a day and I'm all yours. She was broke, but I took the job anyway.

'It's not easy being a private 'tec, what with Mike Hammer and Humphrey Bogart for competition. Then there's this stuffed Maltese falcon perched on my hat stand . . . I wouldn't mind. But I'm allergic to feathers.

'Things ain't bin the same since we got this new mayor. A lot of people have left town, without leaving a forwarding address. Also there's this new craze for underwater concrete sculpture.

'The night porter at the Hotel Royale said he had a hot tip for me, but when I got there I found he'd bin eaten by roaches. Ugh! What a way to go.

'As a master of disguise, I can mix in all circles to get information. De only trouble is there is never a 'phone box around when you really need one. Dis could be ma hardest case yet.'

Contact Sam Cruise**, from Microsphere. Snappy dialogue and cartoon graphics reminiscent of** Mugsy**. It's been advertised for ages and still no game. Maybe that's the mystery you've got to solve. Microsphere is still keeping the gameplay a secret until closer to the release date, but the demo tape looks interesting.**

Streetdate: mid-November. Price: not released

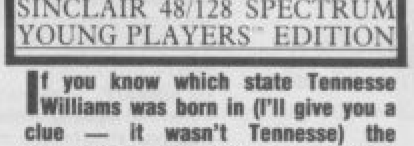
WHY DR WHAT?

Dr What**. Who? No, What. What? Yes, What. You what? No, he's What, I'm not. Confused? You will be.**

Dr What **is a new arcade adventure from CRL. It features four Drs . . . What, Why, When and Where. No Who for obvious legal reasons (expensive licence that one, guys). The four Drs have travelled back in time to watch the Big Bang at the aptly named Big Bang Burger Bar. I guess they took over the concession from the Restaurant at the End of the Universe.**

The object of the game is to get each Dr to the Jellybaby of infinite wisdom . . . What? Well, only if he's first in line. No, What is the jellybaby of infinite wisdom? Oh, sorry. Confusing isn't it. Yes, but about this jellybaby? You cannot be serious? Well, someone is. Yes, but who? Not Who, What.

Streetdate: October. Price: £7.95.



If you know which state Tennesse Williams was born in (I'll give you a clue — it wasn't Tennesse) the chances are you have played Trivial Pursuit**.**

This yuppie board game was converted to the Spectrum by ODE and released by Domark (see last month's mag).

Now, Young Players Trivial Pursuit **is set to baffle more micro owners. The game, again programmed by ODE, is designed for eight to 16 year olds. It takes some questions from the board game, but ODE has added a number of graphical and musical questions.**

And a Baby Boomer **version of the game is due out early next year.**

Streetdate: November. Price £7.95

HAPPY, HAPPY

The Happiest Days of Your Life **is another** Manic Miner **clone, but is not as good as the original. It's another of Firebird's silver £1.99 range — and features all the things you'd expect to find in a school, like mortar boards, school ties and gin bottles.**

Wander round the school and its environs, supposedly looking for the headmaster's wallet. If you find it, don't empty the contents into your own pockets — you are trying to prove your innocence after all.

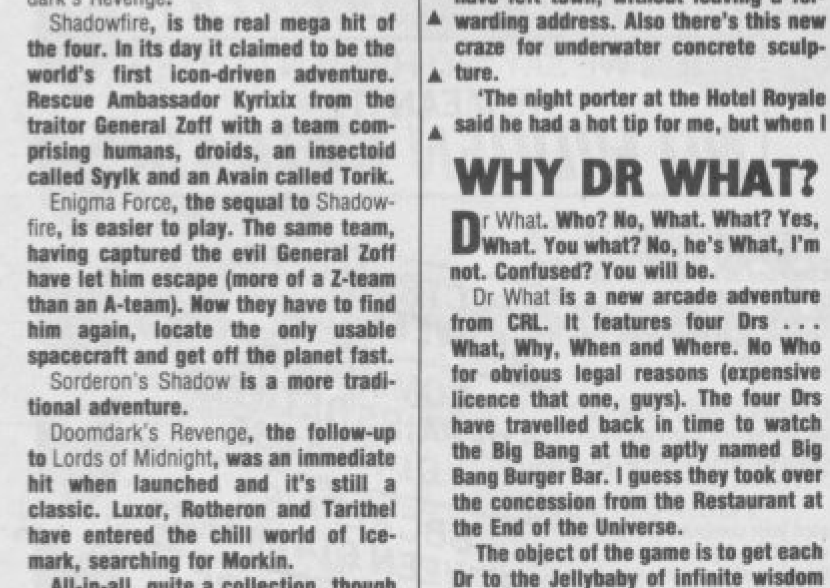
You have three lives and an energy counter. Lose too much energy and you will lose a life. Bumping into alien nasties will reduce your energy.

Technically, the game is OK-ish, but it is about as attention grabbing as a bowl of cold pasta.

Streetdate: October. Price: £1.99



ORBIX THE TERRIBLE



Orbix the Terrible **(terrible name, I presume) is a hi-speed shoot 'em up from Streetwise — the new Domark action label.**

Programmed by Jon Pragnal, it is set on an alien planet where Orbix's spacecraft has been disassembled and hidden by the hostile inhabitants. Orbix has to find the seven different sections of the spacecraft, put them back together again and leave the planet.

The 3D roving landscape includes cities, trees and burnt-out forests. And, rather worryingly, holes appear in the ground which will suck in Orbix unless he manages to avoid them.

Orbix has five lives and an unlimited supply of missiles. His energy can be replenished by killing aliens.

Orbix, who bears a strange resemblance to an animated football, gets an extra life each time he assembles one of the spacecraft sections.

Streetdate: November. Price: £7.95

NOW VIRGIN'S A WALLY

Virgin's Now Games 3 **is (surprise, surprise) the third in its series of re-release collections.**

The five games on this tape are Nick Faldo Plays the Open, Sorcery, Codename Mat II, Everyone's a Wally **and** View to a Kill**.**

The version of Sorcery **contains improved graphics and extra rooms — the other games are unchanged from their original release.**

Codename Mat II**, from Domark, is a shoot 'em up revolving around Mat and his new ship Centurian II in a battle to defeat the Myons.**

Nick Faldo's **golf simulation is set in Royal St George's Golf Club at Sandwich, which was the venue for the 114th Open Championship in July 1985. You select the club, strength and direction of your shot using either keyboard or joystick. Your caddy is not shy about telling you his comments.**

Everyone's a Wally **is a multi-screened arcade adventure while** View to a Kill **is a very poor three-part arcade adventure based on the James Bond film (remember how bad that game was? So do I).**

Streetdate: October. Price: £9.95



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Your Sinclair (July) *"They are all very playable. The graphics are adequate, the sound excellent".* Addictivness 7/10: Playability 8/10: Value for money 8/10.

CRASH (June) *"Overall the ASTROCADE Collection should keep any games player quiet . . ."*

P.C.W. (May) *"You can't call it a rip off at the price".*

Your Sinclair (July) *If you fancy a nostalgic bash (it's absolutely aaages since since I've potted a good Zombie!) then rush £4.50 to D.D.S."*

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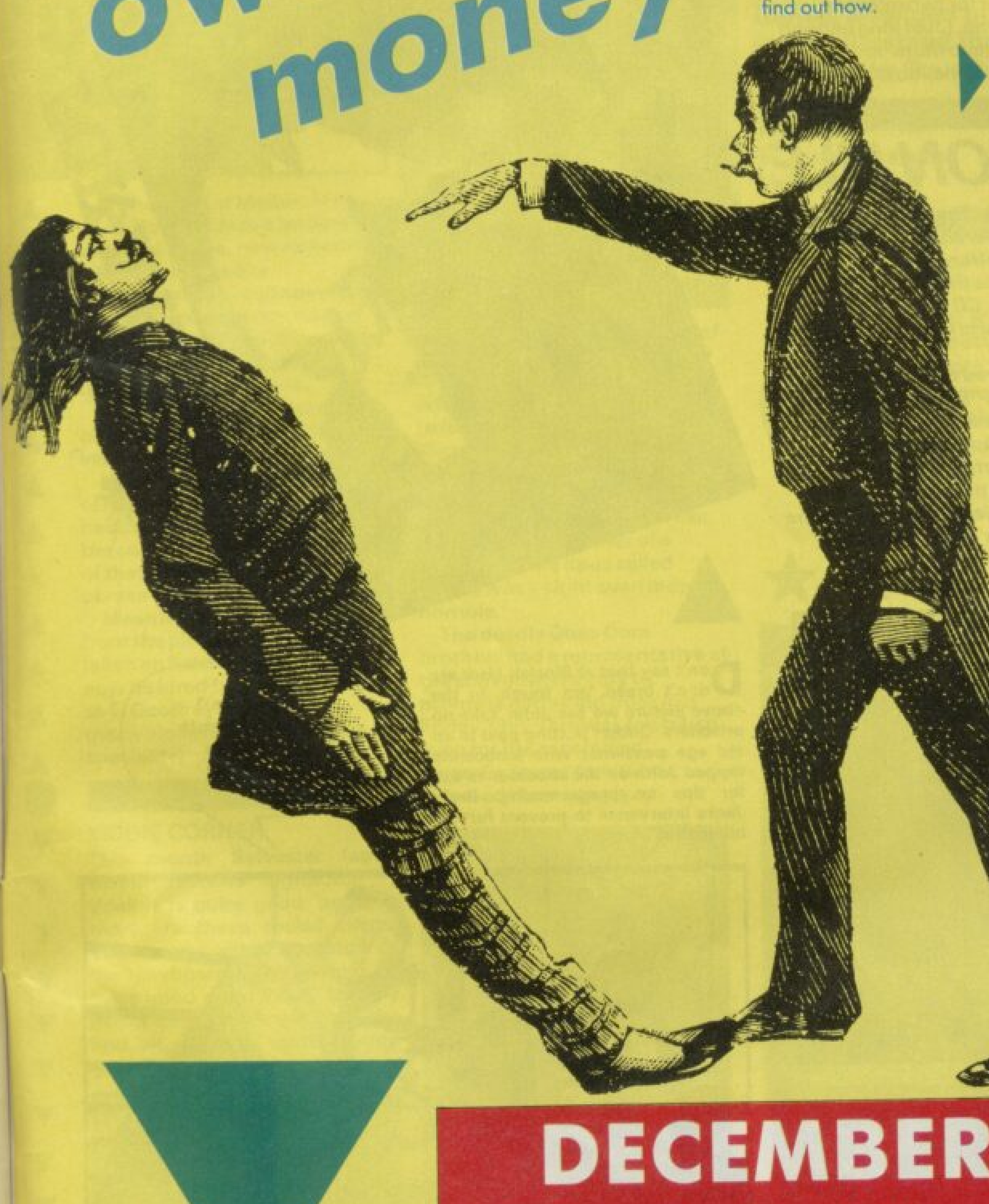
You'll owe US money

Buy Sinclair User and save money! In the December issue we have a dozen ways to save you money (at least).

Obviously we'll review more software, earlier than anybody else and give you our rating when you need it — just before the thing hits the streets. That could save you plenty on naff games not bought.

Then there's this project. Listen, We know electronic projects are a bit boring — all those pages and pages of circuits with funny squiggles but if we said you could build a robot for fifteen quid or so that would trundle around, learn mazes, do all that clevel stuff and needed the electrical expertise of dead hampster — then would you be interested? Next month find out how.





We review the Compliment — the ultimate up-grade including disc, real keyboard and printer for £345. Sounds cheap? Maybe. Find out next month.

Check out the front cover next month. If all it has are two bits of sellotape and tear marks then somebody has stolen another astonishingly amazing free booklet.

This time we look at money. Money? Money is what matters most. We look at what costs what and provide the difinitive Christmas buying guide to everything for the Spectrum that's worth scrimping, saving or nagging aged aunts for.

In fact — after buying next month's issue you'll probably have saved so much money that you'll owe *us* cash. But it's OK we're reasonable. Our boys are reasonable. We're sure you'll be reasonable.

Don't wear concrete shoes. Buy Sinclair User

DECEMBER Sinclair User.

Out on Parole, November 18th



Bug Byte Software hits rock bottom with some bum it picked up off the street

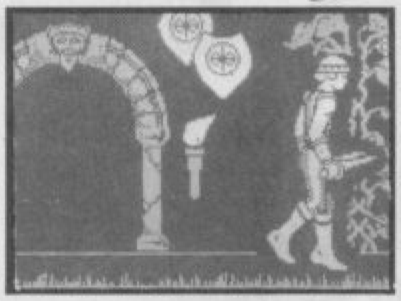
No one will ever guess my secret identity

Whenever *Gremlin* has perused Micronet it has seemed to be full of boring messages along the lines of "Hi Mick have you heard the new *Dire Straits*". "No, is it good?"

Anyway the 'Net' (as real people call it) is now mooting a new feature more commonly known to the tabloid press as Bingo.

What prizes will be on offer must also be in doubt — it'll probably be a cheese sandwich with Lunchbreaks O' Bourne and a voucher for two minutes access time. (Just long enough to type 'Hello Mum' in someone's mailbox)

"Excuse me has anybody seen a arcade, strategy or adventure game anywhere around here?"



OK so where is **Dark Sceptre?** Gremlin doesn't know.

Last time we saw it it looked pretty near finished, but for a good many weeks now there has not been a squeak.

Could Mike Singleton have been kidnapped by a Romulen battle cruiser? I think we should be told

GREMLIN FICTION FILE

Amstrad's expensive lawyers please note: The following story is, Gremlin is sure completely untrue and purely apocryphal. It has no basis in fact whatsoever. Don't believe it. Here it is.

The joke, so the story goes, is that when the first model of Amstrads 'all in one' radio, record, dual tape, CD unit were first delivered to Amstrad central control from parts foreign it was eagerly examined by big Al Sugar himself.

He clicked that and prodded this and listened to some music on both the record player and the CD. He frowns "Do you know?" he growls "I don't think I can hear any difference whatsoever between the record player and the compact disc". Various people look nervous and stare at their feet pondering fearfully. What will this mean to Amstrad's (expensive) pland for the product?

Alan thinks hard for a while. Eventually he looks up, a gruesome smile playing across his lips "I know what we'll do", he says — "we'll just make the record player a bit worse".

This is genius. If only it were true.

LOOKING FOR A HERO



Don't say that at Sinclair User we don't breed 'em tough. In the above picture we see John 'take no prisoners' Gilbert putting paid to an old age pensioner who innocently tapped John on the shoulder to ask for tips on programming. Brain Jacks intervenes to prevent further bloodshed

"I leave all the difficult questions to him"



ODD FACTS

Here is an odd fact. At the PCW **show there was a sign on the Boots stand saying Boots Top 10 Chart. Among titles in the top five were** Fist II, Paperboy, Miami Vice **and** Galvan.

A further sign explained that these games were not available to be purchased from the stand.

True because at the time they weren't available anywhere.

But how could they be in the chart? *Gremlin* remains confused



Mozaic has done some bizarre licencing deals in its time but ***The Archers*** *— much loved radio series concerning the tedious lives of country folk (and a few Sloanes down from London for the weekend) must be one of the oddest.*

In the picture above we see the Archers programming team together with the technical advisor to the series (the one in the middle with neither horns or a cap)

Gremlin



What's up at Melbourne House? Once a leading software house, now reduced to releasing things like Conquestador **— a game which is sheer tossblanketry (to use someone else's word) — cutting staff and causing big shot Geoffrey Heath to leave.**

Geoffrey was considered by all and sundry to be a) brilliant b) very, very, very expensive.

What comment can be got out of Melbourne House on why he has departed seems to add up to the computer trade equivalent of that meaningful rock band phrase 'musical differences'.

Meanwhile as you can see from the picture Geoffrey has fallen on hard times and can now be hired for £20 an evening as El Geoffrey and his magic gypsy violin (leaving parties a speciality)

KIDDIE CORNER

This month Sylvester (aged seven) reviews Lightforce **"I think it is quite good, because there are these round aliens. You can use either a joystick or the keyboard. The sound is quite good. I got 23000 but my friend Kevin can't get past the first bit. All in all quite a good game"**



Francis Lee who was some sort of software supremo (Label manager, whatever that means) at Beyond, has left the job. Possibly not entirely willingly. This state of affairs leads Gremlin **to ponder the following analogy:**

If Beyond were an episode of Star Trek **(and sometimes that seems not impossible) then would Francis be Lieutenant Witherspoon the geology specialist that you have never seen in any previous episodes who has to beam down to the planet surface first with Kirk and Co and who you just know is not going to come back?**



"I can't believe my ears captain. "That's OK I can't believe your ears either Mr Spock"

At the 11th annual awards of the British Fantasy society — the fantasy convention where, presumably, people go to be conventionally fantastic — there were many odd things.

Among the death and destruction and horrible sights from horror fiction writers like Shaun Hutson (author of a charming little opus called Slugs**) was a sight even more horrible.**

The deadly Dom-Dom brothers had a representative at the convention trying to promote dodgy old titles like Friday 13th. **This was too much even for the assembled fantastic horror fans who shunned them utterly.**



The dreaded Dom-Dom duo. Would you buy a merchandising concept from these men?

GREMLIN CHARTS

Games arranged in order according to how difficult it is to understand the plot

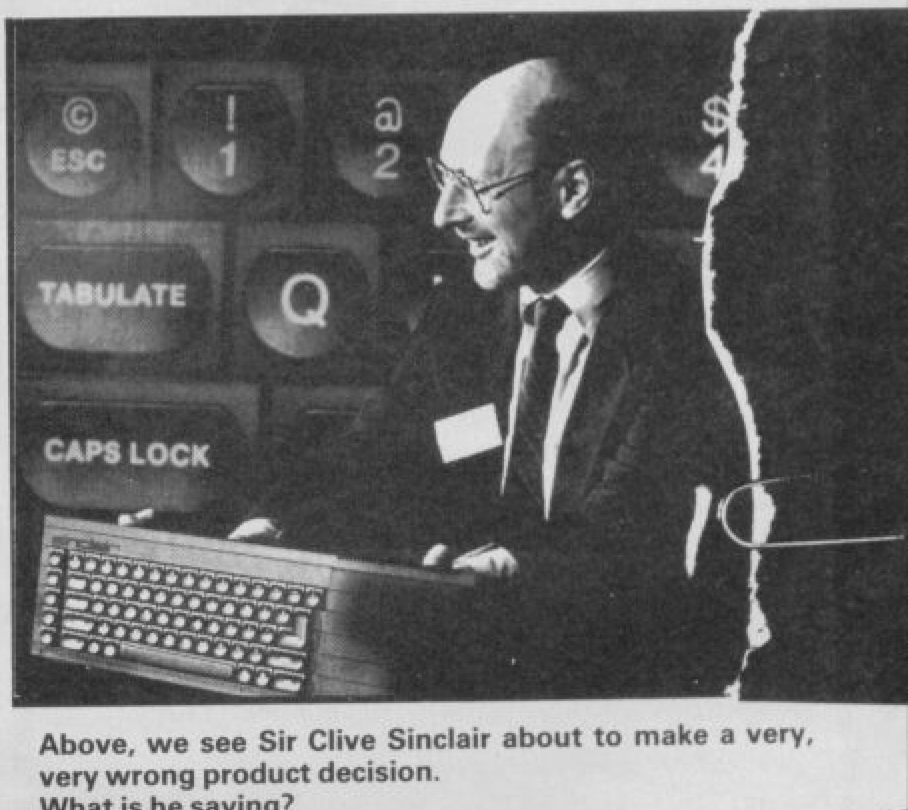
1)	Octagon Squad	Mastertronic
2)	Nexor	Design Design
3)	Glider Rider	Quicksilva
4)	Deactivators	Ariolasoft
5)	Prodigy	Electric Dreams

Gremlin is the proud owner of a humble new magazine feature: The Creative Caption Competition.

Each month SU will print a picture from the archives and invite you, proud and humble reader to put a caption to it.

Writer of the most amusing, or the least unfunny, caption will win £20 and our undying admiration

★★★★★★



Above, we see Sir Clive Sinclair about to make a very, very wrong product decision.

What is he saying?

Name ______________________

Address ______________________

____

Caption (max 12 words) ______________________

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SINCLAIR user SUBSCRIPTION OFFER

It's a steal!



Tight as we are, we've got a little deal that's really going to make your palms sweat. Those kind people at Firebird are allowing you to have two of their Hot Range games completeley FREE if you take out a subscription to the new-look *Sinclair User*.

All you do is fill out the coupon, choosing the two games you want (plus a third choice in case one sells out), send it back to us post-haste and allow 28 days (max) for the sizzling package to drop on your doorstep.

We'll also guarantee delivery of the hottest Spectrum mag around — bar none — *Sinclair User* to arrive on the dot of the 18th of each month for the next twelve months — starting in December.

What more could you ask? Get sizzling!

Coupon

I can't wait to get my hands on the new-look SINCLAIR USER and a couple of HOT games.

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All for the 48K Spectrum
Games (tick two as applicable)

- **Gerry the Germ** ☐
- **Vectron 3D** ☐
- **Rasputin** ☐
- **Costa Capers** ☐
- **Runestone** ☐

My Third Choice is ________________

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		tick box
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(Surface) Rest of World	£35	☐
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Amount £ ________ Number ________
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Please make cheques payable to: SINCLAIR USER
Return to Carl Dunne, FIREBIRD OFFER, Sinclair User Subs, Mag Services, EMAP, 30-32 Farringdon Lane, London EC1R 3AU

GERRY THE GERM — GOES BODY POPPIN'

This novel little game could alternatively be titled Gerry the Germ goes mad in the Taj Mahal Indian takeaway, as he appears to have the same effect on your body as a chicken vindaloo.

Imagine you are a parasite, aka Gerry the Germ, boastful bug extraordinaire. Your mission is to get to the heart, from whence you can become virulent virus of the year. Before you can get there you need to go where no man has gone before, the lungs, kidneys, bladder, stomach and pancreas. If you get this far (and you'd be a healthier man than me) you can claim your prize.

VECTRON — 3D

Tearing down the corridors of a totally unknown dimension you wonder 'Is this it?...' Screaming towards electronic killing machines of immeasurable power you can only survive by zapping with your UD cannon and flicking on your shields. You need to find the Rom Robot, destroy it and make your escape... but your map has been destroyed. Let your wits, and adrenalin lead you... Can you find your exit? Will you fall foul of the enemy fighters? Have you the nerve? Is this it?... Well is it?

RASPUTIN

You remember Rasputin. Boney M did a song about him R...R...R.....R. Rasputin, pervy old priest who came from East. R...R...R... Rasputin, feared cause he had an extremely long beard. Ah! They don't write songs like that anymore. But they do write extremely good games.

Guide Ivan Kosmovichski on his quest to destroy the Jewel of the Seven Planets — the power source of the evil spirit of Rasputin. Armed with a magic sword and shield, you'll journey through the dark and dangerous netherworld in this graphic adventure.

COSTA CAPERS

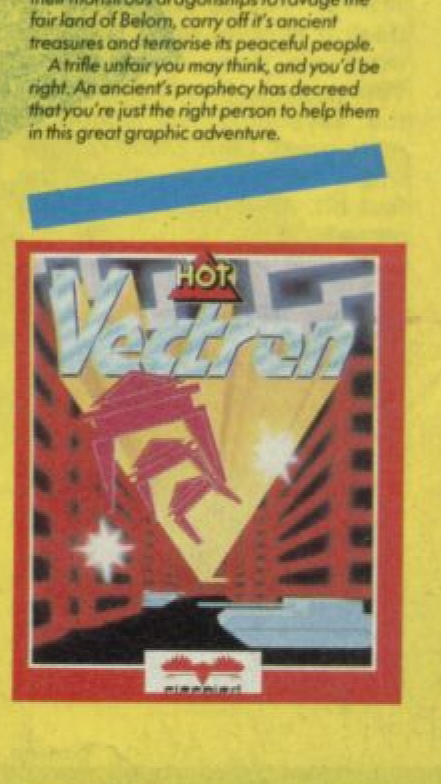
Life in the Chip Factory has become unbearable for Ted. It was probably the introduction of these horrible oven ones that taste like crisps left out in the rain, sat on and... anyway, back to the story.

Ted says 'Adios, factory!' and sets out for Espana. Immediately his luggage goes astray, including his money. So it's all down to you to make sure he enjoys his hols. Find his camera, then his credit card, but don't let him drink...' Mamma Mia', when Ted drinks all hell breaks loose in this 57-screen adventure

RUNESTONE

For many generations the evil orc legions — under the command of Kerdamir the Necromancer — have struck south across the Great Waters in their monstrous dragonships to ravage the fair land of Belom, carry off it's ancient treasures and terrorise its peaceful people.

A trifle unfair you may think, and you'd be right. An ancient's prophecy has decreed that you're just the right person to help them in this great graphic adventure.





DOUBLE DOUBLE TAKE

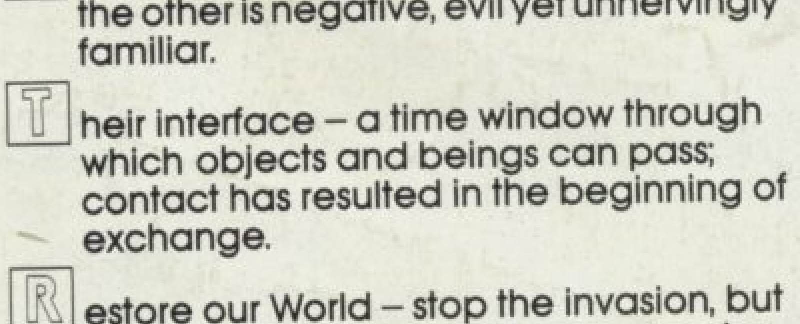
T wo worlds – the mirror image of each other, touch in space through a Time-Warp.

O ne is positive, good, familiar – our World; the other is negative, evil yet unnervingly familiar.

T heir interface – a time window through which objects and beings can pass; contact has resulted in the beginning of exchange.

R estore our World – stop the invasion, but do it now, for as the exchange accelerates, the time window grows larger – domination is a hand!

STARTLING ACTION · INNOVATIVE GAME PLAY · STATE OF THE ART 3-D GRAPHICS



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